

***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6262G-1**Price:** \$120.00**Gene Name:**ABL1**Mutation Id:** COSM12578**Nucleotide Change:** c.1052T>C**Amino Acid Change:** p.M351T**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6061G-1**Price:** \$120.00**Gene Name:**AKT1**Mutation Id:** COSM33765**Nucleotide Change:** c.49G>A**Amino Acid Change:** p.E17K**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6308G-1**Price:** \$120.00**Gene Name:**ALK**Mutation Id:** COSM28059**Nucleotide Change:** c.3521T>G**Amino Acid Change:** p.F1174C**Frequency:** Heterozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6309G-1**Price:** \$120.00**Gene Name:**ALK**Mutation Id:** COSM28056**Nucleotide Change:** c.3824G>A**Amino Acid Change:** p.R1275Q**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6310G-1**Price:** \$120.00**Gene Name:**ALK**Mutation Id:** COSM28060**Nucleotide Change:** c.3824G>T**Amino Acid Change:** p.R1275L**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6311G-1**Price:** \$120.00**Gene Name:**ALK**Mutation Id:** COSM99137**Nucleotide Change:** c.3586C>A**Amino Acid Change:** p.L1196M**Frequency:** Heterozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6148G-1**Price:** \$120.00**Gene Name:**APC**Mutation Id:** COSM13864**Nucleotide Change:** c.4393\_4394delAG**Amino Acid Change:** p.S1465fs\*3**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6144G-1**Price:** \$120.00**Gene Name:**APC**Mutation Id:** COSM13127**Nucleotide Change:** c.4348C>T**Amino Acid Change:** p.R1450\***Frequency:** Heterozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6412G-1**Price:** \$120.00**Gene Name:**APC**Mutation Id:** COSM41607**Nucleotide Change:** c.4090\_4091insA**Amino Acid Change:** p.S1364fs\*11**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6435G-1**Price:** \$120.00**Gene Name:**APC**Mutation Id:** COSM18761**Nucleotide Change:** c.4090delA**Amino Acid Change:** p.S1364fs\*51**Frequency:** Homozygous

**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6150G-1**Price:** \$120.00**Gene Name:**APC**Mutation Id:** COSM13134**Nucleotide Change:** c.637C>T**Amino Acid Change:** p.R213\***Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASO-6047-1**Price:** \$120.00**Gene Name:**BRAF**Mutation Id:** COSM476**Nucleotide Change:** 1799T>A**Amino Acid Change:** V600E**Frequency:** Heterozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASO-6044-1**Price:** \$120.00**Gene Name:**BRAF**Mutation Id:** COSM473**Nucleotide Change:** 1798\_1799GT>AA**Amino Acid Change:** V600K**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASO-6045-1**Price:** \$120.00**Gene Name:**BRAF**Mutation Id:** COSM474**Nucleotide Change:** 1798\_1799GT>AG**Amino Acid Change:** V600R**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASO-6049-1**Price:** \$120.00**Gene Name:**BRAF**Mutation Id:** COSM1130**Nucleotide Change:** 1798G>A**Amino Acid Change:** V600M**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard**

**Catalog:** ASO-6046-1  
**Price:** \$120.00  
**Gene Name:** BRAF  
**Mutation Id:** COSM475  
**Nucleotide Change:** 1799\_1800TG>AA  
**Amino Acid Change:** V600E  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6048-1  
**Price:** \$120.00  
**Gene Name:** BRAF  
**Mutation Id:** COSM477  
**Nucleotide Change:** 1799\_1800TG>AT  
**Amino Acid Change:** V600D  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6050-1  
**Price:** \$120.00  
**Gene Name:** BRAF  
**Mutation Id:** COSM6137  
**Nucleotide Change:** 1799T>G  
**Amino Acid Change:** V600G  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6108G-1  
**Price:** \$120.00  
**Gene Name:** BRCA1  
**Mutation Id:** COSM35891  
**Nucleotide Change:** c.5263\_5264insC(5382insC)  
**Amino Acid Change:** p.Q1756fs\*74  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6107G-1  
**Price:** \$120.00  
**Gene Name:** BRCA1  
**Mutation Id:** COSM3190163  
**Nucleotide Change:** c.68\_69delAG  
**Amino Acid Change:** p.E23fs\*17  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6106G-1

**Price:** \$120.00  
**Gene Name:**BRCA1  
**Mutation Id:** COSM78883  
**Nucleotide Change:** c.5503C>T  
**Amino Acid Change:** p.R1835\*  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6113G-1  
**Price:** \$120.00  
**Gene Name:**BRCA1  
**Mutation Id:** rs80357997  
**Nucleotide Change:** c.5137delG  
**Amino Acid Change:** p.Val1713Terfs  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6114G-1  
**Price:** \$120.00  
**Gene Name:**BRCA1  
**Mutation Id:** ClinVar55412  
**Nucleotide Change:** c.5138T>C  
**Amino Acid Change:** p.V1713A  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6115G-1  
**Price:** \$120.00  
**Gene Name:**BRCA1  
**Mutation Id:** COSM148277  
**Nucleotide Change:** c.3548A>G  
**Amino Acid Change:** p.K1183R  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6116G-1  
**Price:** \$120.00  
**Gene Name:**BRCA1  
**Mutation Id:** COSM148278  
**Nucleotide Change:** c.2612C>T  
**Amino Acid Change:** p.P871L  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6112G-1  
**Price:** \$120.00

**Gene Name:**BRCA1  
**Mutation Id:** OMIM: 113705.0025  
**Nucleotide Change:** c.3481\_3491del11  
**Amino Acid Change:** p.E1161Fs  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6119G-1  
**Price:** \$120.00  
**Gene Name:**BRCA2  
**Mutation Id:** COSM1738242  
**Nucleotide Change:** c.7934delG  
**Amino Acid Change:** p.R2645fs\*3  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6337G-1  
**Price:** \$120.00  
**Gene Name:**BRCA2  
**Mutation Id:** COSM6048457  
**Nucleotide Change:** c.5067delA  
**Amino Acid Change:** p.K1691fs\*15  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6513G-1  
**Price:** \$120.00  
**Gene Name:**BRCA2  
**Mutation Id:** COSM5078975  
**Nucleotide Change:** c.5066\_5067insA  
**Amino Acid Change:** p.W1692fs\*3  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6294G-1  
**Price:** \$120.00  
**Gene Name:**CDH1  
**Mutation Id:** COSM972800  
**Nucleotide Change:** c.2195G>A  
**Amino Acid Change:** p.R732Q  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6295G-1  
**Price:** \$120.00  
**Gene Name:**CDX2

**Mutation Id:** COSM1366182  
**Nucleotide Change:** c.916delG  
**Amino Acid Change:** p.V306fs\*2  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6137G-1  
**Price:** \$120.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5663  
**Nucleotide Change:** c.133T>C  
**Amino Acid Change:** p.S45P  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6138G-1  
**Price:** \$120.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5662  
**Nucleotide Change:** c.110C>T  
**Amino Acid Change:** p.S37F  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6142G-1  
**Price:** \$120.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5676  
**Nucleotide Change:** c.122C>T  
**Amino Acid Change:** p.T41I  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6524G-1  
**Price:** \$120.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM6132  
**Nucleotide Change:** c.136\_141delCTGAGT  
**Amino Acid Change:** p.L46\_S47del  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6528G-1  
**Price:** \$120.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5990184

**Nucleotide Change:** c.116\_138del23

**Amino Acid Change:** p.A39fs\*3

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6143G-1

**Price:** \$120.00

**Gene Name:**CTNNB1

**Mutation Id:** COSM6128

**Nucleotide Change:** c.133\_135delTCT

**Amino Acid Change:** p.S45del

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6052G-1

**Price:** \$120.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM776

**Nucleotide Change:** c.3140A>T

**Amino Acid Change:** p.H1047L

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6140G-1

**Price:** \$120.00

**Gene Name:**CTNNB1

**Mutation Id:** COSM5673

**Nucleotide Change:** c.98C>A

**Amino Acid Change:** p.S33Y

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6139G-1

**Price:** \$120.00

**Gene Name:**CTNNB1

**Mutation Id:** COSM5677

**Nucleotide Change:** c.98C>G

**Amino Acid Change:** p.S33C

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6008-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM12384

**Nucleotide Change:** 2237\_2255>T



**Amino Acid Change:** E746\_S752>V

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6003-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM6255

**Nucleotide Change:** 2239\_2256del18

**Amino Acid Change:** L747\_S752del

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6029-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM6240

**Nucleotide Change:** c.2369C>T

**Amino Acid Change:** p.T790M

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6183G-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM13193

**Nucleotide Change:** c.2477A>G

**Amino Acid Change:** p.N826S

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6343G-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM12988

**Nucleotide Change:** c.2125G>A

**Amino Acid Change:** p.E709K

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6346G-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM236670

**Nucleotide Change:** c.1476C>A

**Amino Acid Change:** p.S492R

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6000-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM6252

**Nucleotide Change:** 2155G>A

**Amino Acid Change:** G719S

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6001-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM6253

**Nucleotide Change:** 2155G>T

**Amino Acid Change:** G719C

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6002-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM6239

**Nucleotide Change:** 2156G>C

**Amino Acid Change:** G719A

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6015-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM26038

**Nucleotide Change:** 2233\_2247del15

**Amino Acid Change:** K745\_E749delKELRE

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6024-1

**Price:** \$120.00

**Gene Name:**EGFR

**Mutation Id:** COSM13550

**Nucleotide Change:** 2235\_2248>AATTC

**Amino Acid Change:** E746\_A750>IP

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASO-6016-1**Price:** \$120.00**Gene Name:**EGFR**Mutation Id:** COSM6223**Nucleotide Change:** 2235\_2249del15**Amino Acid Change:** E746\_A750delELREA**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASO-6014-1**Price:** \$120.00**Gene Name:**EGFR**Mutation Id:** COSM13551**Nucleotide Change:** 2235\_2252>AAT**Amino Acid Change:** E746\_T751>I**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASO-6017-1**Price:** \$120.00**Gene Name:**EGFR**Mutation Id:** COSM6225**Nucleotide Change:** 2236\_2250del15**Amino Acid Change:** E746\_A750delELREA**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASO-6009-1**Price:** \$120.00**Gene Name:**EGFR**Mutation Id:** COSM12728**Nucleotide Change:** 2236\_2253del18**Amino Acid Change:** E746\_T751del**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASO-6010-1**Price:** \$120.00**Gene Name:**EGFR**Mutation Id:** COSM12678**Nucleotide Change:** 2237\_2251del15**Amino Acid Change:** E746\_T751>A**Frequency:** Homozygous

**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASO-6013-1**Price:** \$120.00**Gene Name:**EGFR**Mutation Id:** COSM12386**Nucleotide Change:** 2237\_2252>T**Amino Acid Change:** E746\_T751>V**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASO-6007-1**Price:** \$120.00**Gene Name:**EGFR**Mutation Id:** COSM12367**Nucleotide Change:** 2237\_2254del18**Amino Acid Change:** E746\_S752>A**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASO-6022-1**Price:** \$120.00**Gene Name:**EGFR**Mutation Id:** COSM12422**Nucleotide Change:** 2238\_2248>GC**Amino Acid Change:** L747\_A750>P**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASO-6020-1**Price:** \$120.00**Gene Name:**EGFR**Mutation Id:** COSM12419**Nucleotide Change:** 2238\_2252>GCA**Amino Acid Change:** L747\_T751>Q**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASO-6005-1**Price:** \$120.00**Gene Name:**EGFR**Mutation Id:** COSM6220**Nucleotide Change:** 2238\_2255del18**Amino Acid Change:** E746\_S752>D**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard**

**Catalog:** ASO-6023-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6218  
**Nucleotide Change:** 2239\_2247del9  
**Amino Acid Change:** L747\_E749delLRE  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6021-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12382  
**Nucleotide Change:** 2239\_2248TTAAGAGAAG>C  
**Amino Acid Change:** L747\_A750>P  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6018-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12383  
**Nucleotide Change:** 2239\_2251>C  
**Amino Acid Change:** L747\_T751>P  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6006-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12387  
**Nucleotide Change:** 2239\_2258>CA  
**Amino Acid Change:** L747\_P753>Q  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6019-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6210  
**Nucleotide Change:** 2240\_2251del12  
**Amino Acid Change:** L747\_T751>S  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6012-1

**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12369 (COSM6254)  
**Nucleotide Change:** 2240\_2254del15  
**Amino Acid Change:** L747\_T751del  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6004-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12370  
**Nucleotide Change:** 2240\_2257del18  
**Amino Acid Change:** L747\_P753>S  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6025-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6241  
**Nucleotide Change:** 2303G>T  
**Amino Acid Change:** S768I  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6026-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12376  
**Nucleotide Change:** 2307\_2308insGCCAGCGTG  
**Amino Acid Change:** V769\_D770insASV  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6027-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12378  
**Nucleotide Change:** 2310\_2311insGGT  
**Amino Acid Change:** D770\_N771insG  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6028-1  
**Price:** \$120.00

**Gene Name:**EGFR  
**Mutation Id:** COSM12377  
**Nucleotide Change:** 2319\_2320insCAC  
**Amino Acid Change:** H773\_V774insH  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6030-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6224  
**Nucleotide Change:** 2573T>G  
**Amino Acid Change:** L858R  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6031-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6213  
**Nucleotide Change:** 2582T>A  
**Amino Acid Change:** L861Q  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6182G-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM18422  
**Nucleotide Change:** c.2360A>G  
**Amino Acid Change:** p.Q787R  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6177G-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6493937/6240  
**Nucleotide Change:** c.2389T>A/c.2369C>T  
**Amino Acid Change:** p.C797S/T790M  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6185G-1  
**Price:** \$120.00  
**Gene Name:**EGFR

**Mutation Id:** COSM85894  
**Nucleotide Change:** c.2527G>A  
**Amino Acid Change:** p.V843I  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6176G-1  
**Price:** \$120.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM5945664/6240  
**Nucleotide Change:** c.2390G>C/c.2369C>T  
**Amino Acid Change:** p.C797S/T790M  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6175G-1  
**Price:** \$120.00  
**Gene Name:**ERBB2  
**Mutation Id:** COSM12553  
**Nucleotide Change:** c.2326\_2327insTGT  
**Amino Acid Change:** p.G776>VC  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6171G-1  
**Price:** \$120.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM1074635  
**Nucleotide Change:** c.1609T>A  
**Amino Acid Change:** p.Y537N  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6170G-1  
**Price:** \$120.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM1074639  
**Nucleotide Change:** c.1610A>C  
**Amino Acid Change:** p.Y537S  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6172G-1  
**Price:** \$120.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM1074637



**Nucleotide Change:** c.1610A>G

**Amino Acid Change:** p.Y537C

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6169G-1

**Price:** \$120.00

**Gene Name:**ESR1

**Mutation Id:** COSM94250

**Nucleotide Change:** c.1613A>G

**Amino Acid Change:** p.D538G

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6354G-1

**Price:** \$120.00

**Gene Name:**FBXW7

**Mutation Id:** COSM22971

**Nucleotide Change:** c.832C>T

**Amino Acid Change:** p.R278\*

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6355G-1

**Price:** \$120.00

**Gene Name:**FBXW7

**Mutation Id:** COSM22964

**Nucleotide Change:** c.1099C>T

**Amino Acid Change:** p.R367\*

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6247G-1

**Price:** \$120.00

**Gene Name:**FGFR2

**Mutation Id:** COSM36903

**Nucleotide Change:** c.755C>G

**Amino Acid Change:** p.S252W

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6250G-1

**Price:** \$120.00

**Gene Name:**FGFR2

**Mutation Id:** COSM36904

**Nucleotide Change:** c.1124A>G

**Amino Acid Change:** p.Y375C

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6251G-1

**Price:** \$120.00

**Gene Name:**FGFR2

**Mutation Id:** COSM36906

**Nucleotide Change:** c.1144T>C

**Amino Acid Change:** p.C382R

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6208G-1

**Price:** \$120.00

**Gene Name:**FGFR3

**Mutation Id:** COSM714

**Nucleotide Change:** c.742C>T

**Amino Acid Change:** p.R248C

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6209G-1

**Price:** \$120.00

**Gene Name:**FGFR3

**Mutation Id:** COSM718

**Nucleotide Change:** c.1118A>G

**Amino Acid Change:** p.Y373C

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6211G-1

**Price:** \$120.00

**Gene Name:**FGFR3

**Mutation Id:** COSM17461

**Nucleotide Change:** c.1111A>T

**Amino Acid Change:** p.S371C

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6212G-1

**Price:** \$120.00

**Gene Name:**FGFR3

**Mutation Id:** COSM24842

**Nucleotide Change:** c.1138G>A

**Amino Acid Change:** p.G380R

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6154G-1

**Price:** \$120.00

**Gene Name:**FLT3

**Mutation Id:** COSM785

**Nucleotide Change:** c.2503G>C

**Amino Acid Change:** p.D835H

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6157G-1

**Price:** \$120.00

**Gene Name:**FLT3

**Mutation Id:** COSM19836

**Nucleotide Change:** c.2508\_2510delCAT

**Amino Acid Change:** p.I836delI

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6279G-1

**Price:** \$120.00

**Gene Name:**GNAQ

**Mutation Id:** COSM28758

**Nucleotide Change:** c.626A>C

**Amino Acid Change:** p.Q209P

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6281G-1

**Price:** \$120.00

**Gene Name:**GNAQ

**Mutation Id:** COSM28760

**Nucleotide Change:** c.626A>G

**Amino Acid Change:** p.Q209R

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6278G-1

**Price:** \$120.00

**Gene Name:**GNAQ

**Mutation Id:** COSM28757

**Nucleotide Change:** c.626A>T

**Amino Acid Change:** p.Q209L

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6285G-1**Price:** \$120.00**Gene Name:**GNAS**Mutation Id:** COSM27899**Nucleotide Change:** c.601C>A**Amino Acid Change:** p.R201S**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6286G-1**Price:** \$120.00**Gene Name:**GNAS**Mutation Id:** COSM27895**Nucleotide Change:** c.602G>A**Amino Acid Change:** p.R201H**Frequency:** Heterozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6468G-1**Price:** \$120.00**Gene Name:**GNAS**Mutation Id:** rs1060500285**Nucleotide Change:** c.686A>G**Amino Acid Change:** p.D229G**Frequency:** Heterozygous***Onco-Ref™ Genomic DNA Reference Standard HCT116 WT*****Catalog:** ASO-6052-1**Price:** \$120.00***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6076G-1**Price:** \$120.00**Gene Name:**HRAS**Mutation Id:** COSM483**Nucleotide Change:** c.35G>T**Amino Acid Change:** p.G12V**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6077G-1**Price:** \$120.00**Gene Name:**HRAS**Mutation Id:** COSM484

**Nucleotide Change:** c.35G>A

**Amino Acid Change:** p.G12D

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6361G-1

**Price:** \$120.00

**Gene Name:**HRAS

**Mutation Id:** COSM502

**Nucleotide Change:** c.183G>T

**Amino Acid Change:** p.Q61H

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6079G-1

**Price:** \$120.00

**Gene Name:**HRAS

**Mutation Id:** COSM496

**Nucleotide Change:** c.181C>A

**Amino Acid Change:** p.Q61K

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6078G-1

**Price:** \$120.00

**Gene Name:**HRAS

**Mutation Id:** COSM486

**Nucleotide Change:** c.37G>C

**Amino Acid Change:** p.G13R

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6080G-1

**Price:** \$120.00

**Gene Name:**HRAS

**Mutation Id:** COSM499

**Nucleotide Change:** c.182A>G

**Amino Acid Change:** p.Q61R

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6218G-1

**Price:** \$120.00

**Gene Name:**IDH1

**Mutation Id:** COSM28746

**Nucleotide Change:** c.395G>A

**Amino Acid Change:** p.R132H

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6226G-1

**Price:** \$120.00

**Gene Name:**IDH2

**Mutation Id:** COSM41877

**Nucleotide Change:** c.418C>T

**Amino Acid Change:** p.R140W

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6225G-1

**Price:** \$120.00

**Gene Name:**IDH2

**Mutation Id:** COSM41590

**Nucleotide Change:** c.419G>A

**Amino Acid Change:** p.R140Q

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6227G-1

**Price:** \$120.00

**Gene Name:**IDH2

**Mutation Id:** COSM41875

**Nucleotide Change:** c.419G>T

**Amino Acid Change:** p.R140L

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6232G-1

**Price:** \$120.00

**Gene Name:**IDH2

**Mutation Id:** COSM33731

**Nucleotide Change:** c.514A>G

**Amino Acid Change:** p.R172G

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6231G-1

**Price:** \$120.00

**Gene Name:**IDH2

**Mutation Id:** COSM34039

**Nucleotide Change:** c.514A>T

**Amino Acid Change:** p.R172W

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6228G-1

**Price:** \$120.00

**Gene Name:**IDH2

**Mutation Id:** COSM33733

**Nucleotide Change:** c.515G>A

**Amino Acid Change:** p.R172K

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6229G-1

**Price:** \$120.00

**Gene Name:**IDH2

**Mutation Id:** COSM33732

**Nucleotide Change:** c.515G>T

**Amino Acid Change:** p.R172M

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6230G-1

**Price:** \$120.00

**Gene Name:**IDH2

**Mutation Id:** COSM34090

**Nucleotide Change:** c.516G>T

**Amino Acid Change:** p.R172S

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6120G-1

**Price:** \$120.00

**Gene Name:**JAK2

**Mutation Id:** COSM12600

**Nucleotide Change:** c.1849G>T

**Amino Acid Change:** p.V617F

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6121G-1

**Price:** \$120.00

**Gene Name:**JAK2

**Mutation Id:** COSM4391514

**Nucleotide Change:** c.1843G>T

**Amino Acid Change:** p.V615L

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6122G-1**Price:** \$120.00**Gene Name:**JAK2**Mutation Id:** COSM29117**Nucleotide Change:** c.1849G>A**Amino Acid Change:** p.V617I**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6160G-1**Price:** \$120.00**Gene Name:**KIT**Mutation Id:** COSM1226**Nucleotide Change:** c.1670\_1675delGGAAGG**Amino Acid Change:** p.W557\_V559>F**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6162G-1**Price:** \$120.00**Gene Name:**KIT**Mutation Id:** COSM1314**Nucleotide Change:** c.2447A>T**Amino Acid Change:** p.D816V**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6163G-1**Price:** \$120.00**Gene Name:**KIT**Mutation Id:** COSM1310**Nucleotide Change:** c.2446G>T**Amino Acid Change:** p.D816Y**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6164G-1**Price:** \$120.00**Gene Name:**KIT**Mutation Id:** COSM1311**Nucleotide Change:** c.2446G>C**Amino Acid Change:** p.D816H**Frequency:** Homozygous



**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6166G-1**Price:** \$120.00**Gene Name:**KIT**Mutation Id:** COSM1255**Nucleotide Change:** c.1676T>C**Amino Acid Change:** p.V559A**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6167G-1**Price:** \$120.00**Gene Name:**KIT**Mutation Id:** COSM1257**Nucleotide Change:** c.1679T>A**Amino Acid Change:** p.V560D**Frequency:** Heterozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6159G-1**Price:** \$120.00**Gene Name:**KIT**Mutation Id:** COSM1221**Nucleotide Change:** c.1669T>G**Amino Acid Change:** p.W557G**Frequency:** Heterozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6165G-1**Price:** \$120.00**Gene Name:**KIT**Mutation Id:** COSM1252**Nucleotide Change:** c.1676T>A**Amino Acid Change:** p.V559D**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6410G-1**Price:** \$120.00**Gene Name:**KIT**Mutation Id:** COSM21979**Nucleotide Change:** c.2446\_2447GA>AT**Amino Acid Change:** p.D816I**Frequency:** Heterozygous**Onco-Ref™ Genomic DNA Reference Standard**

**Catalog:** ASE-6411G-1  
**Price:** \$120.00  
**Gene Name:**KIT  
**Mutation Id:** COSM1254  
**Nucleotide Change:** c.1676\_1684del9  
**Amino Acid Change:** p.V559\_E561del  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6423G-1  
**Price:** \$120.00  
**Gene Name:**KIT  
**Mutation Id:** COSM1256  
**Nucleotide Change:** c.1678\_1680delGTT  
**Amino Acid Change:** p.V560del  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6531G-1  
**Price:** \$120.00  
**Gene Name:**KIT  
**Mutation Id:** COSM1247  
**Nucleotide Change:** c.1675\_1677delGTT  
**Amino Acid Change:** p.V559del  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6038-1  
**Price:** \$120.00  
**Gene Name:**KRAS  
**Mutation Id:** COSM527  
**Nucleotide Change:** 37G>T  
**Amino Acid Change:** G13C  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6062G-1  
**Price:** \$120.00  
**Gene Name:**KRAS  
**Mutation Id:** COSM554  
**Nucleotide Change:** c.183A>C  
**Amino Acid Change:** p.Q61H  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6033-1

**Price:** \$120.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM517  
**Nucleotide Change:** 34G>A  
**Amino Acid Change:** G12S  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6034-1  
**Price:** \$120.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM518  
**Nucleotide Change:** 34G>C  
**Amino Acid Change:** G12R  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6032-1  
**Price:** \$120.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM516  
**Nucleotide Change:** 34G>T  
**Amino Acid Change:** G12C  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6036-1  
**Price:** \$120.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM521  
**Nucleotide Change:** 35G>A  
**Amino Acid Change:** G12D  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6037-1  
**Price:** \$120.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM522  
**Nucleotide Change:** 35G>C  
**Amino Acid Change:** G12A  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6035-1  
**Price:** \$120.00

**Gene Name:** KRAS  
**Mutation Id:** COSM520  
**Nucleotide Change:** 35G>T  
**Amino Acid Change:** G12V  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6039-1  
**Price:** \$120.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM528  
**Nucleotide Change:** 37G>A  
**Amino Acid Change:** G13S  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6040-1  
**Price:** \$120.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM529  
**Nucleotide Change:** 37G>C  
**Amino Acid Change:** G13R  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6041-1  
**Price:** \$120.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM532  
**Nucleotide Change:** 38G>A  
**Amino Acid Change:** G13D  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6042-1  
**Price:** \$120.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM533  
**Nucleotide Change:** 38G>C  
**Amino Acid Change:** G13A  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASO-6043-1  
**Price:** \$120.00  
**Gene Name:** KRAS

**Mutation Id:** COSM534  
**Nucleotide Change:** 38G>T  
**Amino Acid Change:** G13V  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6201G-1  
**Price:** \$120.00  
**Gene Name:**MAP2K1  
**Mutation Id:** COSM235614  
**Nucleotide Change:** c.370C>T  
**Amino Acid Change:** p.P124S  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6204G-1  
**Price:** \$120.00  
**Gene Name:**MAP2K1  
**Mutation Id:** COSM232755  
**Nucleotide Change:** c.607G>A  
**Amino Acid Change:** p.E203K  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6202G-1  
**Price:** \$120.00  
**Gene Name:**MAP2K1  
**Mutation Id:** COSM1315861  
**Nucleotide Change:** c.371C>T  
**Amino Acid Change:** p.P124L  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6205G-1  
**Price:** \$120.00  
**Gene Name:**MAP2K1  
**Mutation Id:** COSM1235478  
**Nucleotide Change:** c.171G>T  
**Amino Acid Change:** p.K57N  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6299G-1  
**Price:** \$120.00  
**Gene Name:**MET  
**Mutation Id:** COSM707

**Nucleotide Change:** c.3029C>T

**Amino Acid Change:** p.T1010I

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6300G-1

**Price:** \$120.00

**Gene Name:**MET

**Mutation Id:** COSM699

**Nucleotide Change:** c.3743A>G

**Amino Acid Change:** p.Y1248C

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6303G-1

**Price:** \$120.00

**Gene Name:**MET

**Mutation Id:** COSM706

**Nucleotide Change:** c.504G>T

**Amino Acid Change:** p.E168D

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6296G-1

**Price:** \$120.00

**Gene Name:**MLH1

**Mutation Id:** COSM2985326

**Nucleotide Change:** c.967C>A

**Amino Acid Change:** p.L323M

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6297G-1

**Price:** \$120.00

**Gene Name:**MLH1

**Mutation Id:** COSM26085

**Nucleotide Change:** c.1151T>A

**Amino Acid Change:** p.V384D

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6271G-1

**Price:** \$120.00

**Gene Name:**NOTCH1

**Mutation Id:** COSM12772

**Nucleotide Change:** c.4721T>C

**Amino Acid Change:** p.L1574P

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6272G-1

**Price:** \$120.00

**Gene Name:**NOTCH1

**Mutation Id:** COSM13047

**Nucleotide Change:** c.4732\_4734delGTG

**Amino Acid Change:** p.V1578delV

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6273G-1

**Price:** \$120.00

**Gene Name:**NOTCH1

**Mutation Id:** COSM13042

**Nucleotide Change:** c.4778T>C

**Amino Acid Change:** p.L1593P

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6275G-1

**Price:** \$120.00

**Gene Name:**NOTCH1

**Mutation Id:** COSM12771

**Nucleotide Change:** c.4799T>C

**Amino Acid Change:** p.L1600P

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6277G-1

**Price:** \$120.00

**Gene Name:**NOTCH1

**Mutation Id:** COSM33747

**Nucleotide Change:** c.5094C>T

**Amino Acid Change:** p.D1698D

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6068G-1

**Price:** \$120.00

**Gene Name:**NRAS

**Mutation Id:** COSM573

**Nucleotide Change:** c.38G>A

**Amino Acid Change:** p.G13D

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6366G-1

**Price:** \$120.00

**Gene Name:**NRAS

**Mutation Id:** COSM585

**Nucleotide Change:** c.183A>T

**Amino Acid Change:** p.Q61H

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6368G-1

**Price:** \$120.00

**Gene Name:**NRAS

**Mutation Id:** COSM566

**Nucleotide Change:** c.35G>T

**Amino Acid Change:** p.G12V

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6072G-1

**Price:** \$120.00

**Gene Name:**NRAS

**Mutation Id:** COSM580

**Nucleotide Change:** c.181C>A

**Amino Acid Change:** p.Q61K

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6071G-1

**Price:** \$120.00

**Gene Name:**NRAS

**Mutation Id:** COSM584

**Nucleotide Change:** c.182A>G

**Amino Acid Change:** p.Q61R

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6073G-1

**Price:** \$120.00

**Gene Name:**NRAS

**Mutation Id:** COSM583

**Nucleotide Change:** c.182A>T

**Amino Acid Change:** p.Q61L

**Frequency:** Homozygous



***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6200G-1**Price:** \$120.00**Gene Name:**NRAS**Mutation Id:** COSM5044298**Nucleotide Change:** c.183\_183delA**Amino Acid Change:** p.E62fs\*6**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6066G-1**Price:** \$120.00**Gene Name:**NRAS**Mutation Id:** COSM563**Nucleotide Change:** c.34G>A**Amino Acid Change:** p.G12S**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6067G-1**Price:** \$120.00**Gene Name:**NRAS**Mutation Id:** COSM562**Nucleotide Change:** c.34G>T**Amino Acid Change:** p.G12C**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6065G-1**Price:** \$120.00**Gene Name:**NRAS**Mutation Id:** COSM564**Nucleotide Change:** c.35G>A**Amino Acid Change:** p.G12D**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6069G-1**Price:** \$120.00**Gene Name:**NRAS**Mutation Id:** COSM569**Nucleotide Change:** c.37G>C**Amino Acid Change:** p.G13R**Frequency:** Homozygous

**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6254G-1**Price:** \$120.00**Gene Name:**PDGFRA**Mutation Id:** COSM22413**Nucleotide Change:** c.2472C>T**Amino Acid Change:** p.V824V**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6255G-1**Price:** \$120.00**Gene Name:**PDGFRA**Mutation Id:** COSM736**Nucleotide Change:** c.2525A>T**Amino Acid Change:** p.D842V**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6256G-1**Price:** \$120.00**Gene Name:**PDGFRA**Mutation Id:** COSM737**Nucleotide Change:** c.2524\_2535del12**Amino Acid Change:** p.I843\_D846delIMHD**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6257G-1**Price:** \$120.00**Gene Name:**PDGFRA**Mutation Id:** COSM12400**Nucleotide Change:** c.2527\_2538del12**Amino Acid Change:** p.I843\_D846delIMHD**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6058G-1**Price:** \$120.00**Gene Name:**PIK3CA**Mutation Id:** COSM746**Nucleotide Change:** c.263G>A**Amino Acid Change:** p.R88Q**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard**

**Catalog:** ASE-6056G-1  
**Price:** \$120.00  
**Gene Name:**PIK3CA  
**Mutation Id:** COSM12458  
**Nucleotide Change:** c.1634A>C  
**Amino Acid Change:** p.E545A  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6060G-1  
**Price:** \$120.00  
**Gene Name:**PIK3CA  
**Mutation Id:** COSM757  
**Nucleotide Change:** c.1258T>C  
**Amino Acid Change:** p.C420R  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6053G-1  
**Price:** \$120.00  
**Gene Name:**PIK3CA  
**Mutation Id:** COSM760  
**Nucleotide Change:** c.1624G>A  
**Amino Acid Change:** p.E542K  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6054G-1  
**Price:** \$120.00  
**Gene Name:**PIK3CA  
**Mutation Id:** COSM763  
**Nucleotide Change:** c.1633G>A  
**Amino Acid Change:** p.E545K  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6055G-1  
**Price:** \$120.00  
**Gene Name:**PIK3CA  
**Mutation Id:** COSM764  
**Nucleotide Change:** c.1634A>G  
**Amino Acid Change:** p.E545G  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6057G-1

**Price:** \$120.00  
**Gene Name:** PIK3CA  
**Mutation Id:** COSM766  
**Nucleotide Change:** c.1636C>A  
**Amino Acid Change:** p.Q546K  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6051G-1  
**Price:** \$120.00  
**Gene Name:** PIK3CA  
**Mutation Id:** COSM775  
**Nucleotide Change:** c.3140A>G  
**Amino Acid Change:** p.H1047R  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6070G-1  
**Price:** \$120.00  
**Gene Name:** NRAS  
**Mutation Id:** COSM574  
**Nucleotide Change:** c.38G>T  
**Amino Acid Change:** p.G13V  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6243G-1  
**Price:** \$120.00  
**Gene Name:** PIK3R1  
**Mutation Id:** COSM1069619  
**Nucleotide Change:** c.1718T>C  
**Amino Acid Change:** p.L573P  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6244G-1  
**Price:** \$120.00  
**Gene Name:** PIK3R1  
**Mutation Id:** COSM85927  
**Nucleotide Change:** c.1721G>T  
**Amino Acid Change:** p.R574I  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6245G-1  
**Price:** \$120.00

**Gene Name:**PIK3R1  
**Mutation Id:** COSM1069623  
**Nucleotide Change:** c.1721\_1722insA  
**Amino Acid Change:** p.T576fs\*26  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6246G-1  
**Price:** \$120.00  
**Gene Name:**PIK3R1  
**Mutation Id:** COSM35737  
**Nucleotide Change:** c.1727\_1729delCGA  
**Amino Acid Change:** p.T576del  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6425G-1  
**Price:** \$120.00  
**Gene Name:**PIK3R1  
**Mutation Id:** COSM85885  
**Nucleotide Change:** c.1709\_1735del27  
**Amino Acid Change:** p.L570\_D578del  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6129G-1  
**Price:** \$120.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5152  
**Nucleotide Change:** c.388C>T  
**Amino Acid Change:** p.R130\*  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6130G-1  
**Price:** \$120.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5216  
**Nucleotide Change:** c.389G>T  
**Amino Acid Change:** p.R130L  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6131G-1  
**Price:** \$120.00  
**Gene Name:**PTEN

**Mutation Id:** COSM5089  
**Nucleotide Change:** c.517C>T  
**Amino Acid Change:** p.R173C  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6132G-1  
**Price:** \$120.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5039  
**Nucleotide Change:** c.518G>A  
**Amino Acid Change:** p.R173H  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6134G-1  
**Price:** \$120.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM4391544  
**Nucleotide Change:** c.377C>G  
**Amino Acid Change:** p.A126G  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6127G-1  
**Price:** \$120.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5219  
**Nucleotide Change:** c.388C>G  
**Amino Acid Change:** p.R130G  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6128G-1  
**Price:** \$120.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5033  
**Nucleotide Change:** c.389G>A  
**Amino Acid Change:** p.R130Q  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6133G-1  
**Price:** \$120.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5154

**Nucleotide Change:** c.697C>T

**Amino Acid Change:** p.R233\*

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6123G-1

**Price:** \$120.00

**Gene Name:**RB1

**Mutation Id:** COSM892

**Nucleotide Change:** c.1735C>T

**Amino Acid Change:** p.R579\*

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6125G-1

**Price:** \$120.00

**Gene Name:**RB1

**Mutation Id:** COSM878

**Nucleotide Change:** c.751C>T

**Amino Acid Change:** p.R251\*

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6315G-1

**Price:** \$120.00

**Gene Name:**RET

**Mutation Id:** COSM968

**Nucleotide Change:** c.1894\_1899delGAGCTG

**Amino Acid Change:** p.E632\_L633del

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard RKO WT***

**Catalog:** ASO-6051-1

**Price:** \$120.00

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6322G-1

**Price:** \$120.00

**Gene Name:**ROS1

**Mutation Id:** COSM1697823

**Nucleotide Change:** c.4924G>A

**Amino Acid Change:** p.E1642K

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6319G-1

**Price:** \$120.00  
**Gene Name:** SMAD4  
**Mutation Id:** COSM14049  
**Nucleotide Change:** c.1067C>T  
**Amino Acid Change:** p.P356L  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6320G-1  
**Price:** \$120.00  
**Gene Name:** SMAD4  
**Mutation Id:** COSM1226726  
**Nucleotide Change:** c.1066C>T  
**Amino Acid Change:** p.P356S  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6372G-1  
**Price:** \$120.00  
**Gene Name:** STK11  
**Mutation Id:** COSM21360  
**Nucleotide Change:** c.1062C>G  
**Amino Acid Change:** p.F354L  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6375G-1  
**Price:** \$120.00  
**Gene Name:** STK11  
**Mutation Id:** COSM20943  
**Nucleotide Change:** c.508C>T  
**Amino Acid Change:** p.Q170\*  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6376G-1  
**Price:** \$120.00  
**Gene Name:** STK11  
**Mutation Id:** COSM21354  
**Nucleotide Change:** c.511G>A  
**Amino Acid Change:** p.G171S  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6091G-1  
**Price:** \$120.00



**Gene Name:**TP53  
**Mutation Id:** COSM10662  
**Nucleotide Change:** c.743G>A  
**Amino Acid Change:** p.R248Q  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6082G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10648  
**Nucleotide Change:** c.524G>A  
**Amino Acid Change:** p.R175H  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6083G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10870  
**Nucleotide Change:** c.523C>G  
**Amino Acid Change:** p.R175G  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6084G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10718  
**Nucleotide Change:** c.524G>T  
**Amino Acid Change:** p.R175L  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6094G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10817  
**Nucleotide Change:** c.747G>T  
**Amino Acid Change:** p.R249S  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6095G-1  
**Price:** \$120.00  
**Gene Name:**TP53

**Mutation Id:** COSM43629  
**Nucleotide Change:** c.745A>T  
**Amino Acid Change:** p.R249W  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6096G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43871  
**Nucleotide Change:** c.746G>T  
**Amino Acid Change:** p.R249M  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6097G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10668  
**Nucleotide Change:** c.745A>G  
**Amino Acid Change:** p.R249G  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6191G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10690  
**Nucleotide Change:** c.473G>A  
**Amino Acid Change:** p.R158H  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6192G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10714  
**Nucleotide Change:** c.473G>T  
**Amino Acid Change:** p.R158L  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6195G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10670

**Nucleotide Change:** c.469G>T

**Amino Acid Change:** p.V157F

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6196G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM43903

**Nucleotide Change:** c.470T>G

**Amino Acid Change:** p.V157G

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6198G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM10889

**Nucleotide Change:** c.536A>G

**Amino Acid Change:** p.H179R

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6085G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM10758

**Nucleotide Change:** c.659A>G

**Amino Acid Change:** p.Y220C

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6105G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM13747

**Nucleotide Change:** c.1146delA

**Amino Acid Change:** p.K382fs\*>12

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6379G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM10808

**Nucleotide Change:** c.488A>G

**Amino Acid Change:** p.Y163C

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6380G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM44623

**Nucleotide Change:** c.487T>A

**Amino Acid Change:** p.Y163N

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6381G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM43846

**Nucleotide Change:** c.487T>C

**Amino Acid Change:** p.Y163H

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6382G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM43559

**Nucleotide Change:** c.517G>T

**Amino Acid Change:** p.V173L

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6383G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM11084

**Nucleotide Change:** c.517G>A

**Amino Acid Change:** p.V173M

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6387G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM43947

**Nucleotide Change:** c.614A>G

**Amino Acid Change:** p.Y205C

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6388G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM43844

**Nucleotide Change:** c.613T>G

**Amino Acid Change:** p.Y205D

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6389G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM10654

**Nucleotide Change:** c.637C>T

**Amino Acid Change:** p.R213\*

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6392G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM43687

**Nucleotide Change:** c.641A>G

**Amino Acid Change:** p.H214R

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6393G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM10725

**Nucleotide Change:** c.701A>G

**Amino Acid Change:** p.Y234C

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6394G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM11152

**Nucleotide Change:** c.700T>C

**Amino Acid Change:** p.Y234H

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6399G-1**Price:** \$120.00**Gene Name:**TP53**Mutation Id:** COSM10810**Nucleotide Change:** c.725G>T**Amino Acid Change:** p.C242F**Frequency:** Heterozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6436G-1**Price:** \$120.00**Gene Name:**TP53**Mutation Id:** COSM45666**Nucleotide Change:** c.810\_811insN**Amino Acid Change:** p.E271fs\*35**Frequency:** Heterozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6514G-1**Price:** \$120.00**Gene Name:**TP53**Mutation Id:** COSM45975**Nucleotide Change:** c.703delA**Amino Acid Change:** p.N235fs\*12**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6515G-1**Price:** \$120.00**Gene Name:**TP53**Mutation Id:** COSM44543**Nucleotide Change:** c.464\_465insN**Amino Acid Change:** p.R156fs\*25**Frequency:** Homozygous***Onco-Ref™ Genomic DNA Reference Standard*****Catalog:** ASE-6516G-1**Price:** \$120.00**Gene Name:**TP53**Mutation Id:** COSM43546**Nucleotide Change:** c.516\_517insN**Amino Acid Change:** p.V173fs\*8**Frequency:** Homozygous

**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6517G-1**Price:** \$120.00**Gene Name:**TP53**Mutation Id:** COSM44400**Nucleotide Change:** c.702\_703insN**Amino Acid Change:** p.N235fs\*5**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6518G-1**Price:** \$120.00**Gene Name:**TP53**Mutation Id:** COSM1318430**Nucleotide Change:** c.516delT**Amino Acid Change:** p.V173fs\*1**Frequency:** Homozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6519G-1**Price:** \$120.00**Gene Name:**TP53**Mutation Id:** COSM44361**Nucleotide Change:** c.533\_534insN**Amino Acid Change:** p.H178fs\*3**Frequency:** Heterozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6520G-1**Price:** \$120.00**Gene Name:**TP53**Mutation Id:** COSM43570**Nucleotide Change:** c.529\_546del18**Amino Acid Change:** p.P177\_C182delPHHERC**Frequency:** Heterozygous**Onco-Ref™ Genomic DNA Reference Standard****Catalog:** ASE-6521G-1**Price:** \$120.00**Gene Name:**TP53**Mutation Id:** COSM1324785**Nucleotide Change:** c.530\_535delCCCACC**Amino Acid Change:** p.P177\_H178delPH**Frequency:** Heterozygous**Onco-Ref™ Genomic DNA Reference Standard**

**Catalog:** ASE-6522G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM46406  
**Nucleotide Change:** c.643delA  
**Amino Acid Change:** p.S215fs\*32  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6523G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM44887  
**Nucleotide Change:** c.644delG  
**Amino Acid Change:** p.S215fs\*32  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6525G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM69179  
**Nucleotide Change:** c.560-1\_583del25  
**Amino Acid Change:** p.?  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6526G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM5982134  
**Nucleotide Change:** c.613\_614insT  
**Amino Acid Change:** p.Y205fs\*4  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6527G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM1716966  
**Nucleotide Change:** c.613\_614insC  
**Amino Acid Change:** p.Y205fs\*4  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6529G-1



**Price:** \$120.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM27310  
**Nucleotide Change:** c.139A>T  
**Amino Acid Change:** p.S47C  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6530G-1  
**Price:** \$120.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM1423011  
**Nucleotide Change:** c.132T>C  
**Amino Acid Change:** p.P44P  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6532G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM45847  
**Nucleotide Change:** c.574\_575delCA  
**Amino Acid Change:** p.Q192fs\*16  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6533G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM4735408  
**Nucleotide Change:** c.571\_581del11  
**Amino Acid Change:** p.P191fs\*14  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6194G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM11087  
**Nucleotide Change:** c.472C>G  
**Amino Acid Change:** p.R158G  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6193G-1  
**Price:** \$120.00

**Gene Name:**TP53  
**Mutation Id:** COSM43848  
**Nucleotide Change:** c.472C>T  
**Amino Acid Change:** p.R158C  
**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6086G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10646  
**Nucleotide Change:** c.725G>A  
**Amino Acid Change:** p.C242Y  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6087G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM6932  
**Nucleotide Change:** c.733G>A  
**Amino Acid Change:** p.G245S  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6090G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM11081  
**Nucleotide Change:** c.733G>T  
**Amino Acid Change:** p.G245C  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6088G-1  
**Price:** \$120.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43606  
**Nucleotide Change:** c.734G>A  
**Amino Acid Change:** p.G245D  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6089G-1  
**Price:** \$120.00  
**Gene Name:**TP53

**Mutation Id:** COSM11196  
**Nucleotide Change:** c.734G>T  
**Amino Acid Change:** p.G245V  
**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6092G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM10656

**Nucleotide Change:** c.742C>T

**Amino Acid Change:** p.R248W

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6093G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM6549

**Nucleotide Change:** c.743G>T

**Amino Acid Change:** p.R248L

**Frequency:** Homozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6099G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM10659

**Nucleotide Change:** c.817C>T

**Amino Acid Change:** p.R273C

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6098G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM10660

**Nucleotide Change:** c.818G>A

**Amino Acid Change:** p.R273H

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6101G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM11232

**Nucleotide Change:** c.842A>G

**Amino Acid Change:** p.D281G

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6103G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM10992

**Nucleotide Change:** c.844C>G

**Amino Acid Change:** p.R282G

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6104G-1

**Price:** \$120.00

**Gene Name:**TP53

**Mutation Id:** COSM44338

**Nucleotide Change:** c.845G>A

**Amino Acid Change:** p.R282Q

**Frequency:** Heterozygous

***Onco-Ref™ Genomic DNA Reference Standard***

**Catalog:** ASE-6218G-05

**Price:** \$70.00

**Gene Name:**IDH1

**Mutation Id:** COSM28746

**Nucleotide Change:** c.395G>A

**Amino Acid Change:** p.R132H

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6262B

**Price:** \$3,500.00

**Gene Name:**ABL1

**Mutation Id:** COSM12578

**Nucleotide Change:** c.1052T>C

**Amino Acid Change:** p.M351T

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6061B

**Price:** \$3,500.00

**Gene Name:**AKT1

**Mutation Id:** COSM33765

**Nucleotide Change:** c.49G>A

**Amino Acid Change:** p.E17K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6308B

**Price:** \$3,500.00

**Gene Name:**ALK

**Mutation Id:** COSM28059

**Nucleotide Change:** c.3521T>G

**Amino Acid Change:** p.F1174C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6309B

**Price:** \$3,500.00

**Gene Name:**ALK

**Mutation Id:** COSM28056

**Nucleotide Change:** c.3824G>A

**Amino Acid Change:** p.R1275Q

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6310B

**Price:** \$3,500.00

**Gene Name:**ALK

**Mutation Id:** COSM28060

**Nucleotide Change:** c.3824G>T

**Amino Acid Change:** p.R1275L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6311B

**Price:** \$3,500.00

**Gene Name:**ALK

**Mutation Id:** COSM99137

**Nucleotide Change:** c.3586C>A

**Amino Acid Change:** p.L1196M

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6148B

**Price:** \$3,500.00

**Gene Name:**APC

**Mutation Id:** COSM13864

**Nucleotide Change:** c.4393\_4394delAG

**Amino Acid Change:** p.S1465fs\*3

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6144B

**Price:** \$3,500.00

**Gene Name:**APC

**Mutation Id:** COSM13127

**Nucleotide Change:** c.4348C>T

**Amino Acid Change:** p.R1450\*

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6412B

**Price:** \$3,500.00

**Gene Name:**APC

**Mutation Id:** COSM41607

**Nucleotide Change:** c.4090\_4091insA

**Amino Acid Change:** p.S1364fs\*11

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6435B

**Price:** \$3,500.00

**Gene Name:**APC

**Mutation Id:** COSM18761

**Nucleotide Change:** c.4090delA

**Amino Acid Change:** p.S1364fs\*51

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6150B

**Price:** \$3,500.00

**Gene Name:**APC

**Mutation Id:** COSM13134

**Nucleotide Change:** c.637C>T

**Amino Acid Change:** p.R213\*

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4047

**Price:** \$3,500.00

**Gene Name:**BRAF

**Mutation Id:** COSM476

**Nucleotide Change:** 1799T>A

**Amino Acid Change:** V600E

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4044**Price:** \$3,500.00**Gene Name:**BRAF**Mutation Id:** COSM473**Nucleotide Change:** 1798\_1799GT>AA**Amino Acid Change:** V600K**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4045**Price:** \$3,500.00**Gene Name:**BRAF**Mutation Id:** COSM474**Nucleotide Change:** 1798\_1799GT>AG**Amino Acid Change:** V600R**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4049**Price:** \$3,500.00**Gene Name:**BRAF**Mutation Id:** COSM1130**Nucleotide Change:** 1798G>A**Amino Acid Change:** V600M**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4046**Price:** \$3,500.00**Gene Name:**BRAF**Mutation Id:** COSM475**Nucleotide Change:** 1799\_1800TG>AA**Amino Acid Change:** V600E**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4048**Price:** \$3,500.00**Gene Name:**BRAF**Mutation Id:** COSM477**Nucleotide Change:** 1799\_1800TG>AT**Amino Acid Change:** V600D**Frequency:** Homozygous

**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASO-4050**Price:** \$3,500.00**Gene Name:** BRAF**Mutation Id:** COSM6137**Nucleotide Change:** 1799T>G**Amino Acid Change:** V600G**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASE-6108B**Price:** \$3,500.00**Gene Name:** BRCA1**Mutation Id:** COSM35891**Nucleotide Change:** c.5263\_5264insC(5382insC)**Amino Acid Change:** p.Q1756fs\*74**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASE-6107B**Price:** \$3,500.00**Gene Name:** BRCA1**Mutation Id:** COSM3190163**Nucleotide Change:** c.68\_69delAG**Amino Acid Change:** p.E23fs\*17**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASE-6106B**Price:** \$3,500.00**Gene Name:** BRCA1**Mutation Id:** COSM78883**Nucleotide Change:** c.5503C>T**Amino Acid Change:** p.R1835\***Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASE-6113B**Price:** \$3,500.00**Gene Name:** BRCA1**Mutation Id:** rs80357997**Nucleotide Change:** c.5137delG**Amino Acid Change:** p.Val1713Terfs**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Block Reference Standard**



**Catalog:** ASE-6114B  
**Price:** \$3,500.00  
**Gene Name:**BRCA1  
**Mutation Id:** ClinVar55412  
**Nucleotide Change:** c.5138T>C  
**Amino Acid Change:** p.V1713A  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6115B  
**Price:** \$3,500.00  
**Gene Name:**BRCA1  
**Mutation Id:** COSM148277  
**Nucleotide Change:** c.3548A>G  
**Amino Acid Change:** p.K1183R  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6116B  
**Price:** \$3,500.00  
**Gene Name:**BRCA1  
**Mutation Id:** COSM148278  
**Nucleotide Change:** c.2612C>T  
**Amino Acid Change:** p.P871L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6112B  
**Price:** \$3,500.00  
**Gene Name:**BRCA1  
**Mutation Id:** OMIM: 113705.0025  
**Nucleotide Change:** c.3481\_3491del11  
**Amino Acid Change:** p.E1161Fs  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6119B  
**Price:** \$3,500.00  
**Gene Name:**BRCA2  
**Mutation Id:** COSM1738242  
**Nucleotide Change:** c.7934delG  
**Amino Acid Change:** p.R2645fs\*3  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6337B

**Price:** \$3,500.00  
**Gene Name:**BRCA2  
**Mutation Id:** COSM6048457  
**Nucleotide Change:** c.5067delA  
**Amino Acid Change:** p.K1691fs\*15  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6513B  
**Price:** \$3,500.00  
**Gene Name:**BRCA2  
**Mutation Id:** COSM5078975  
**Nucleotide Change:** c.5066\_5067insA  
**Amino Acid Change:** p.W1692fs\*3  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6294B  
**Price:** \$3,500.00  
**Gene Name:**CDH1  
**Mutation Id:** COSM972800  
**Nucleotide Change:** c.2195G>A  
**Amino Acid Change:** p.R732Q  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6295B  
**Price:** \$3,500.00  
**Gene Name:**CDX2  
**Mutation Id:** COSM1366182  
**Nucleotide Change:** c.916delG  
**Amino Acid Change:** p.V306fs\*2  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6137B  
**Price:** \$3,500.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5663  
**Nucleotide Change:** c.133T>C  
**Amino Acid Change:** p.S45P  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6138B  
**Price:** \$3,500.00

**Gene Name:**CTNNB1  
**Mutation Id:** COSM5662  
**Nucleotide Change:** c.110C>T  
**Amino Acid Change:** p.S37F  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6142B  
**Price:** \$3,500.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5676  
**Nucleotide Change:** c.122C>T  
**Amino Acid Change:** p.T41I  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6524B  
**Price:** \$3,500.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM6132  
**Nucleotide Change:** c.136\_141delCTGAGT  
**Amino Acid Change:** p.L46\_S47del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6528B  
**Price:** \$3,500.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5990184  
**Nucleotide Change:** c.116\_138del23  
**Amino Acid Change:** p.A39fs\*3  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6143B  
**Price:** \$3,500.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM6128  
**Nucleotide Change:** c.133\_135delITCT  
**Amino Acid Change:** p.S45del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6052B  
**Price:** \$3,500.00  
**Gene Name:**PIK3CA

**Mutation Id:** COSM776  
**Nucleotide Change:** c.3140A>T  
**Amino Acid Change:** p.H1047L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6140B  
**Price:** \$3,500.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5673  
**Nucleotide Change:** c.98C>A  
**Amino Acid Change:** p.S33Y  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6139B  
**Price:** \$3,500.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5677  
**Nucleotide Change:** c.98C>G  
**Amino Acid Change:** p.S33C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4008  
**Price:** \$3,500.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12384  
**Nucleotide Change:** 2237\_2255>T  
**Amino Acid Change:** E746\_S752>V  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4003  
**Price:** \$3,500.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6255  
**Nucleotide Change:** 2239\_2256del18  
**Amino Acid Change:** L747\_S752del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4029  
**Price:** \$3,500.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6240

**Nucleotide Change:** c.2369C>T

**Amino Acid Change:** p.T790M

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6183B

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM13193

**Nucleotide Change:** c.2477A>G

**Amino Acid Change:** p.N826S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6343B

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM12988

**Nucleotide Change:** c.2125G>A

**Amino Acid Change:** p.E709K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6346B

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM236670

**Nucleotide Change:** c.1476C>A

**Amino Acid Change:** p.S492R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4000

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM6252

**Nucleotide Change:** 2155G>A

**Amino Acid Change:** G719S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4001

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM6253

**Nucleotide Change:** 2155G>T

**Amino Acid Change:** G719C

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4002

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM6239

**Nucleotide Change:** 2156G>C

**Amino Acid Change:** G719A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4015

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM26038

**Nucleotide Change:** 2233\_2247del15

**Amino Acid Change:** K745\_E749delKELRE

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4024

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM13550

**Nucleotide Change:** 2235\_2248>AATTC

**Amino Acid Change:** E746\_A750>IP

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4016

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM6223

**Nucleotide Change:** 2235\_2249del15

**Amino Acid Change:** E746\_A750delELREA

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4014

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM13551

**Nucleotide Change:** 2235\_2252>AAT

**Amino Acid Change:** E746\_T751>I

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4017

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM6225

**Nucleotide Change:** 2236\_2250del15

**Amino Acid Change:** E746\_A750delIELREA

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4009

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM12728

**Nucleotide Change:** 2236\_2253del18

**Amino Acid Change:** E746\_T751del

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4010

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM12678

**Nucleotide Change:** 2237\_2251del15

**Amino Acid Change:** E746\_T751>A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4013

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM12386

**Nucleotide Change:** 2237\_2252>T

**Amino Acid Change:** E746\_T751>V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4007

**Price:** \$3,500.00

**Gene Name:**EGFR

**Mutation Id:** COSM12367

**Nucleotide Change:** 2237\_2254del18

**Amino Acid Change:** E746\_S752>A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4022**Price:** \$3,500.00**Gene Name:**EGFR**Mutation Id:** COSM12422**Nucleotide Change:** 2238\_2248>GC**Amino Acid Change:** L747\_A750>P**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4020**Price:** \$3,500.00**Gene Name:**EGFR**Mutation Id:** COSM12419**Nucleotide Change:** 2238\_2252>GCA**Amino Acid Change:** L747\_T751>Q**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4005**Price:** \$3,500.00**Gene Name:**EGFR**Mutation Id:** COSM6220**Nucleotide Change:** 2238\_2255del18**Amino Acid Change:** E746\_S752>D**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4023**Price:** \$3,500.00**Gene Name:**EGFR**Mutation Id:** COSM6218**Nucleotide Change:** 2239\_2247del9**Amino Acid Change:** L747\_E749delLRE**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4021**Price:** \$3,500.00**Gene Name:**EGFR**Mutation Id:** COSM12382**Nucleotide Change:** 2239\_2248TTAAGAGAAG>C**Amino Acid Change:** L747\_A750>P**Frequency:** Homozygous



**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASO-4018**Price:** \$3,500.00**Gene Name:**EGFR**Mutation Id:** COSM12383**Nucleotide Change:** 2239\_2251>C**Amino Acid Change:** L747\_T751>P**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASO-4006**Price:** \$3,500.00**Gene Name:**EGFR**Mutation Id:** COSM12387**Nucleotide Change:** 2239\_2258>CA**Amino Acid Change:** L747\_P753>Q**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASO-4019**Price:** \$3,500.00**Gene Name:**EGFR**Mutation Id:** COSM6210**Nucleotide Change:** 2240\_2251del12**Amino Acid Change:** L747\_T751>S**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASO-4012**Price:** \$3,500.00**Gene Name:**EGFR**Mutation Id:** COSM12369 (COSM6254)**Nucleotide Change:** 2240\_2254del15**Amino Acid Change:** L747\_T751del**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASO-4004**Price:** \$3,500.00**Gene Name:**EGFR**Mutation Id:** COSM12370**Nucleotide Change:** 2240\_2257del18**Amino Acid Change:** L747\_P753>S**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Block Reference Standard**

**Catalog:** ASO-4025  
**Price:** \$3,500.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM6241  
**Nucleotide Change:** 2303G>T  
**Amino Acid Change:** S768I  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4026  
**Price:** \$3,500.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM12376  
**Nucleotide Change:** 2307\_2308insGCCAGCGTG  
**Amino Acid Change:** V769\_D770insASV  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4027  
**Price:** \$3,500.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM12378  
**Nucleotide Change:** 2310\_2311insGGT  
**Amino Acid Change:** D770\_N771insG  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4028  
**Price:** \$3,500.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM12377  
**Nucleotide Change:** 2319\_2320insCAC  
**Amino Acid Change:** H773\_V774insH  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4030  
**Price:** \$3,500.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM6224  
**Nucleotide Change:** 2573T>G  
**Amino Acid Change:** L858R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4031

**Price:** \$3,500.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM6213  
**Nucleotide Change:** 2582T>A  
**Amino Acid Change:** L861Q  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6182B  
**Price:** \$3,500.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM18422  
**Nucleotide Change:** c.2360A>G  
**Amino Acid Change:** p.Q787R  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6177B  
**Price:** \$3,500.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM6493937/6240  
**Nucleotide Change:** c.2389T>A/c.2369C>T  
**Amino Acid Change:** p.C797S/T790M  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6185B  
**Price:** \$3,500.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM85894  
**Nucleotide Change:** c.2527G>A  
**Amino Acid Change:** p.V843I  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6176B  
**Price:** \$3,500.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM5945664/6240  
**Nucleotide Change:** c.2390G>C/c.2369C>T  
**Amino Acid Change:** p.C797S/T790M  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6175B  
**Price:** \$3,500.00

**Gene Name:**ERBB2  
**Mutation Id:** COSM12553  
**Nucleotide Change:** c.2326\_2327insTGT  
**Amino Acid Change:** p.G776>VC  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6171B  
**Price:** \$3,500.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM1074635  
**Nucleotide Change:** c.1609T>A  
**Amino Acid Change:** p.Y537N  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6170B  
**Price:** \$3,500.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM1074639  
**Nucleotide Change:** c.1610A>C  
**Amino Acid Change:** p.Y537S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6172B  
**Price:** \$3,500.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM1074637  
**Nucleotide Change:** c.1610A>G  
**Amino Acid Change:** p.Y537C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6169B  
**Price:** \$3,500.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM94250  
**Nucleotide Change:** c.1613A>G  
**Amino Acid Change:** p.D538G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6354B  
**Price:** \$3,500.00  
**Gene Name:**FBXW7

**Mutation Id:** COSM22971  
**Nucleotide Change:** c.832C>T  
**Amino Acid Change:** p.R278\*  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6355B  
**Price:** \$3,500.00  
**Gene Name:**FBXW7  
**Mutation Id:** COSM22964  
**Nucleotide Change:** c.1099C>T  
**Amino Acid Change:** p.R367\*  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6247B  
**Price:** \$3,500.00  
**Gene Name:**FGFR2  
**Mutation Id:** COSM36903  
**Nucleotide Change:** c.755C>G  
**Amino Acid Change:** p.S252W  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6250B  
**Price:** \$3,500.00  
**Gene Name:**FGFR2  
**Mutation Id:** COSM36904  
**Nucleotide Change:** c.1124A>G  
**Amino Acid Change:** p.Y375C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6251B  
**Price:** \$3,500.00  
**Gene Name:**FGFR2  
**Mutation Id:** COSM36906  
**Nucleotide Change:** c.1144T>C  
**Amino Acid Change:** p.C382R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6208B  
**Price:** \$3,500.00  
**Gene Name:**FGFR3  
**Mutation Id:** COSM714

**Nucleotide Change:** c.742C>T

**Amino Acid Change:** p.R248C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6209B

**Price:** \$3,500.00

**Gene Name:**FGFR3

**Mutation Id:** COSM718

**Nucleotide Change:** c.1118A>G

**Amino Acid Change:** p.Y373C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6211B

**Price:** \$3,500.00

**Gene Name:**FGFR3

**Mutation Id:** COSM17461

**Nucleotide Change:** c.1111A>T

**Amino Acid Change:** p.S371C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6212B

**Price:** \$3,500.00

**Gene Name:**FGFR3

**Mutation Id:** COSM24842

**Nucleotide Change:** c.1138G>A

**Amino Acid Change:** p.G380R

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6154B

**Price:** \$3,500.00

**Gene Name:**FLT3

**Mutation Id:** COSM785

**Nucleotide Change:** c.2503G>C

**Amino Acid Change:** p.D835H

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6157B

**Price:** \$3,500.00

**Gene Name:**FLT3

**Mutation Id:** COSM19836

**Nucleotide Change:** c.2508\_2510delCAT

**Amino Acid Change:** p.I836delI

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6279B

**Price:** \$3,500.00

**Gene Name:**GNAQ

**Mutation Id:** COSM28758

**Nucleotide Change:** c.626A>C

**Amino Acid Change:** p.Q209P

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6281B

**Price:** \$3,500.00

**Gene Name:**GNAQ

**Mutation Id:** COSM28760

**Nucleotide Change:** c.626A>G

**Amino Acid Change:** p.Q209R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6278B

**Price:** \$3,500.00

**Gene Name:**GNAQ

**Mutation Id:** COSM28757

**Nucleotide Change:** c.626A>T

**Amino Acid Change:** p.Q209L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6285B

**Price:** \$3,500.00

**Gene Name:**GNAS

**Mutation Id:** COSM27899

**Nucleotide Change:** c.601C>A

**Amino Acid Change:** p.R201S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6286B

**Price:** \$3,500.00

**Gene Name:**GNAS

**Mutation Id:** COSM27895

**Nucleotide Change:** c.602G>A

**Amino Acid Change:** p.R201H

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6468B

**Price:** \$3,500.00

**Gene Name:**GNAS

**Mutation Id:** rs1060500285

**Nucleotide Change:** c.686A>G

**Amino Acid Change:** p.D229G

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard HCT116 WT***

**Catalog:** ASO-4052

**Price:** \$3,500.00

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6076B

**Price:** \$3,500.00

**Gene Name:**HRAS

**Mutation Id:** COSM483

**Nucleotide Change:** c.35G>T

**Amino Acid Change:** p.G12V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6077B

**Price:** \$3,500.00

**Gene Name:**HRAS

**Mutation Id:** COSM484

**Nucleotide Change:** c.35G>A

**Amino Acid Change:** p.G12D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6361B

**Price:** \$3,500.00

**Gene Name:**HRAS

**Mutation Id:** COSM502

**Nucleotide Change:** c.183G>T

**Amino Acid Change:** p.Q61H

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6079B

**Price:** \$3,500.00

**Gene Name:**HRAS



**Mutation Id:** COSM496  
**Nucleotide Change:** c.181C>A  
**Amino Acid Change:** p.Q61K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6078B

**Price:** \$3,500.00

**Gene Name:**HRAS

**Mutation Id:** COSM486

**Nucleotide Change:** c.37G>C

**Amino Acid Change:** p.G13R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6080B

**Price:** \$3,500.00

**Gene Name:**HRAS

**Mutation Id:** COSM499

**Nucleotide Change:** c.182A>G

**Amino Acid Change:** p.Q61R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6226B

**Price:** \$3,500.00

**Gene Name:**IDH2

**Mutation Id:** COSM41877

**Nucleotide Change:** c.418C>T

**Amino Acid Change:** p.R140W

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6225B

**Price:** \$3,500.00

**Gene Name:**IDH2

**Mutation Id:** COSM41590

**Nucleotide Change:** c.419G>A

**Amino Acid Change:** p.R140Q

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6227B

**Price:** \$3,500.00

**Gene Name:**IDH2

**Mutation Id:** COSM41875

**Nucleotide Change:** c.419G>T

**Amino Acid Change:** p.R140L

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6232B

**Price:** \$3,500.00

**Gene Name:**IDH2

**Mutation Id:** COSM33731

**Nucleotide Change:** c.514A>G

**Amino Acid Change:** p.R172G

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6231B

**Price:** \$3,500.00

**Gene Name:**IDH2

**Mutation Id:** COSM34039

**Nucleotide Change:** c.514A>T

**Amino Acid Change:** p.R172W

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6228B

**Price:** \$3,500.00

**Gene Name:**IDH2

**Mutation Id:** COSM33733

**Nucleotide Change:** c.515G>A

**Amino Acid Change:** p.R172K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6229B

**Price:** \$3,500.00

**Gene Name:**IDH2

**Mutation Id:** COSM33732

**Nucleotide Change:** c.515G>T

**Amino Acid Change:** p.R172M

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6230B

**Price:** \$3,500.00

**Gene Name:**IDH2

**Mutation Id:** COSM34090

**Nucleotide Change:** c.516G>T

**Amino Acid Change:** p.R172S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6120B

**Price:** \$3,500.00

**Gene Name:**JAK2

**Mutation Id:** COSM12600

**Nucleotide Change:** c.1849G>T

**Amino Acid Change:** p.V617F

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6121B

**Price:** \$3,500.00

**Gene Name:**JAK2

**Mutation Id:** COSM4391514

**Nucleotide Change:** c.1843G>T

**Amino Acid Change:** p.V615L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6122B

**Price:** \$3,500.00

**Gene Name:**JAK2

**Mutation Id:** COSM29117

**Nucleotide Change:** c.1849G>A

**Amino Acid Change:** p.V617I

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6160B

**Price:** \$3,500.00

**Gene Name:**KIT

**Mutation Id:** COSM1226

**Nucleotide Change:** c.1670\_1675delGGAAGG

**Amino Acid Change:** p.W557\_V559>F

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6162B

**Price:** \$3,500.00

**Gene Name:**KIT

**Mutation Id:** COSM1314

**Nucleotide Change:** c.2447A>T

**Amino Acid Change:** p.D816V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6163B

**Price:** \$3,500.00

**Gene Name:**KIT

**Mutation Id:** COSM1310

**Nucleotide Change:** c.2446G>T

**Amino Acid Change:** p.D816Y

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6164B

**Price:** \$3,500.00

**Gene Name:**KIT

**Mutation Id:** COSM1311

**Nucleotide Change:** c.2446G>C

**Amino Acid Change:** p.D816H

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6166B

**Price:** \$3,500.00

**Gene Name:**KIT

**Mutation Id:** COSM1255

**Nucleotide Change:** c.1676T>C

**Amino Acid Change:** p.V559A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6167B

**Price:** \$3,500.00

**Gene Name:**KIT

**Mutation Id:** COSM1257

**Nucleotide Change:** c.1679T>A

**Amino Acid Change:** p.V560D

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6159B

**Price:** \$3,500.00

**Gene Name:**KIT

**Mutation Id:** COSM1221

**Nucleotide Change:** c.1669T>G

**Amino Acid Change:** p.W557G

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6165B**Price:** \$3,500.00**Gene Name:**KIT**Mutation Id:** COSM1252**Nucleotide Change:** c.1676T>A**Amino Acid Change:** p.V559D**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6410B**Price:** \$3,500.00**Gene Name:**KIT**Mutation Id:** COSM21979**Nucleotide Change:** c.2446\_2447GA>AT**Amino Acid Change:** p.D816I**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6411B**Price:** \$3,500.00**Gene Name:**KIT**Mutation Id:** COSM1254**Nucleotide Change:** c.1676\_1684del9**Amino Acid Change:** p.V559\_E561del**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6423B**Price:** \$3,500.00**Gene Name:**KIT**Mutation Id:** COSM1256**Nucleotide Change:** c.1678\_1680delGTT**Amino Acid Change:** p.V560del**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6531B**Price:** \$3,500.00**Gene Name:**KIT**Mutation Id:** COSM1247**Nucleotide Change:** c.1675\_1677delGTT**Amino Acid Change:** p.V559del**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4038**Price:** \$3,500.00**Gene Name:** KRAS**Mutation Id:** COSM527**Nucleotide Change:** 37G>T**Amino Acid Change:** G13C**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6062B**Price:** \$3,500.00**Gene Name:** KRAS**Mutation Id:** COSM554**Nucleotide Change:** c.183A>C**Amino Acid Change:** p.Q61H**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4033**Price:** \$3,500.00**Gene Name:** KRAS**Mutation Id:** COSM517**Nucleotide Change:** 34G>A**Amino Acid Change:** G12S**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4034**Price:** \$3,500.00**Gene Name:** KRAS**Mutation Id:** COSM518**Nucleotide Change:** 34G>C**Amino Acid Change:** G12R**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASO-4032**Price:** \$3,500.00**Gene Name:** KRAS**Mutation Id:** COSM516**Nucleotide Change:** 34G>T**Amino Acid Change:** G12C**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4036  
**Price:** \$3,500.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM521  
**Nucleotide Change:** 35G>A  
**Amino Acid Change:** G12D  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4037  
**Price:** \$3,500.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM522  
**Nucleotide Change:** 35G>C  
**Amino Acid Change:** G12A  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4035  
**Price:** \$3,500.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM520  
**Nucleotide Change:** 35G>T  
**Amino Acid Change:** G12V  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4039  
**Price:** \$3,500.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM528  
**Nucleotide Change:** 37G>A  
**Amino Acid Change:** G13S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4040  
**Price:** \$3,500.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM529  
**Nucleotide Change:** 37G>C  
**Amino Acid Change:** G13R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4041

**Price:** \$3,500.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM532  
**Nucleotide Change:** 38G>A  
**Amino Acid Change:** G13D  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4042  
**Price:** \$3,500.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM533  
**Nucleotide Change:** 38G>C  
**Amino Acid Change:** G13A  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASO-4043  
**Price:** \$3,500.00  
**Gene Name:** KRAS  
**Mutation Id:** COSM534  
**Nucleotide Change:** 38G>T  
**Amino Acid Change:** G13V  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6201B  
**Price:** \$3,500.00  
**Gene Name:** MAP2K1  
**Mutation Id:** COSM235614  
**Nucleotide Change:** c.370C>T  
**Amino Acid Change:** p.P124S  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6204B  
**Price:** \$3,500.00  
**Gene Name:** MAP2K1  
**Mutation Id:** COSM232755  
**Nucleotide Change:** c.607G>A  
**Amino Acid Change:** p.E203K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6202B  
**Price:** \$3,500.00



**Gene Name:**MAP2K1  
**Mutation Id:** COSM1315861  
**Nucleotide Change:** c.371C>T  
**Amino Acid Change:** p.P124L  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6205B  
**Price:** \$3,500.00  
**Gene Name:**MAP2K1  
**Mutation Id:** COSM1235478  
**Nucleotide Change:** c.171G>T  
**Amino Acid Change:** p.K57N  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6299B  
**Price:** \$3,500.00  
**Gene Name:**MET  
**Mutation Id:** COSM707  
**Nucleotide Change:** c.3029C>T  
**Amino Acid Change:** p.T1010I  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6300B  
**Price:** \$3,500.00  
**Gene Name:**MET  
**Mutation Id:** COSM699  
**Nucleotide Change:** c.3743A>G  
**Amino Acid Change:** p.Y1248C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6303B  
**Price:** \$3,500.00  
**Gene Name:**MET  
**Mutation Id:** COSM706  
**Nucleotide Change:** c.504G>T  
**Amino Acid Change:** p.E168D  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6296B  
**Price:** \$3,500.00  
**Gene Name:**MLH1

**Mutation Id:** COSM2985326  
**Nucleotide Change:** c.967C>A  
**Amino Acid Change:** p.L323M  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6297B  
**Price:** \$3,500.00  
**Gene Name:**MLH1  
**Mutation Id:** COSM26085  
**Nucleotide Change:** c.1151T>A  
**Amino Acid Change:** p.V384D  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6271B  
**Price:** \$3,500.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM12772  
**Nucleotide Change:** c.4721T>C  
**Amino Acid Change:** p.L1574P  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6272B  
**Price:** \$3,500.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM13047  
**Nucleotide Change:** c.4732\_4734delGTG  
**Amino Acid Change:** p.V1578delV  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6273B  
**Price:** \$3,500.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM13042  
**Nucleotide Change:** c.4778T>C  
**Amino Acid Change:** p.L1593P  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6275B  
**Price:** \$3,500.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM12771

**Nucleotide Change:** c.4799T>C

**Amino Acid Change:** p.L1600P

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6277B

**Price:** \$3,500.00

**Gene Name:**NOTCH1

**Mutation Id:** COSM33747

**Nucleotide Change:** c.5094C>T

**Amino Acid Change:** p.D1698D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6068B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM573

**Nucleotide Change:** c.38G>A

**Amino Acid Change:** p.G13D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6366B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM585

**Nucleotide Change:** c.183A>T

**Amino Acid Change:** p.Q61H

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6368B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM566

**Nucleotide Change:** c.35G>T

**Amino Acid Change:** p.G12V

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6072B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM580

**Nucleotide Change:** c.181C>A

**Amino Acid Change:** p.Q61K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6071B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM584

**Nucleotide Change:** c.182A>G

**Amino Acid Change:** p.Q61R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6073B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM583

**Nucleotide Change:** c.182A>T

**Amino Acid Change:** p.Q61L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6200B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM5044298

**Nucleotide Change:** c.183\_183delA

**Amino Acid Change:** p.E62fs\*6

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6066B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM563

**Nucleotide Change:** c.34G>A

**Amino Acid Change:** p.G12S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6067B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM562

**Nucleotide Change:** c.34G>T

**Amino Acid Change:** p.G12C

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6065B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM564

**Nucleotide Change:** c.35G>A

**Amino Acid Change:** p.G12D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6069B

**Price:** \$3,500.00

**Gene Name:**NRAS

**Mutation Id:** COSM569

**Nucleotide Change:** c.37G>C

**Amino Acid Change:** p.G13R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6254B

**Price:** \$3,500.00

**Gene Name:**PDGFRA

**Mutation Id:** COSM22413

**Nucleotide Change:** c.2472C>T

**Amino Acid Change:** p.V824V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6255B

**Price:** \$3,500.00

**Gene Name:**PDGFRA

**Mutation Id:** COSM736

**Nucleotide Change:** c.2525A>T

**Amino Acid Change:** p.D842V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6256B

**Price:** \$3,500.00

**Gene Name:**PDGFRA

**Mutation Id:** COSM737

**Nucleotide Change:** c.2524\_2535del12

**Amino Acid Change:** p.I843\_D846delIMHD

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6257B**Price:** \$3,500.00**Gene Name:**PDGFRA**Mutation Id:** COSM12400**Nucleotide Change:** c.2527\_2538del12**Amino Acid Change:** p.I843\_D846delIMHD**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6058B**Price:** \$3,500.00**Gene Name:**PIK3CA**Mutation Id:** COSM746**Nucleotide Change:** c.263G>A**Amino Acid Change:** p.R88Q**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6056B**Price:** \$3,500.00**Gene Name:**PIK3CA**Mutation Id:** COSM12458**Nucleotide Change:** c.1634A>C**Amino Acid Change:** p.E545A**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6060B**Price:** \$3,500.00**Gene Name:**PIK3CA**Mutation Id:** COSM757**Nucleotide Change:** c.1258T>C**Amino Acid Change:** p.C420R**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6053B**Price:** \$3,500.00**Gene Name:**PIK3CA**Mutation Id:** COSM760**Nucleotide Change:** c.1624G>A**Amino Acid Change:** p.E542K**Frequency:** Homozygous

**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASE-6054B**Price:** \$3,500.00**Gene Name:**PIK3CA**Mutation Id:** COSM763**Nucleotide Change:** c.1633G>A**Amino Acid Change:** p.E545K**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASE-6055B**Price:** \$3,500.00**Gene Name:**PIK3CA**Mutation Id:** COSM764**Nucleotide Change:** c.1634A>G**Amino Acid Change:** p.E545G**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASE-6057B**Price:** \$3,500.00**Gene Name:**PIK3CA**Mutation Id:** COSM766**Nucleotide Change:** c.1636C>A**Amino Acid Change:** p.Q546K**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASE-6051B**Price:** \$3,500.00**Gene Name:**PIK3CA**Mutation Id:** COSM775**Nucleotide Change:** c.3140A>G**Amino Acid Change:** p.H1047R**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Block Reference Standard****Catalog:** ASE-6070B**Price:** \$3,500.00**Gene Name:**NRAS**Mutation Id:** COSM574**Nucleotide Change:** c.38G>T**Amino Acid Change:** p.G13V**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Block Reference Standard**

**Catalog:** ASE-6243B  
**Price:** \$3,500.00  
**Gene Name:** PIK3R1  
**Mutation Id:** COSM1069619  
**Nucleotide Change:** c.1718T>C  
**Amino Acid Change:** p.L573P  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6244B  
**Price:** \$3,500.00  
**Gene Name:** PIK3R1  
**Mutation Id:** COSM85927  
**Nucleotide Change:** c.1721G>T  
**Amino Acid Change:** p.R574I  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6245B  
**Price:** \$3,500.00  
**Gene Name:** PIK3R1  
**Mutation Id:** COSM1069623  
**Nucleotide Change:** c.1721\_1722insA  
**Amino Acid Change:** p.T576fs\*26  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6246B  
**Price:** \$3,500.00  
**Gene Name:** PIK3R1  
**Mutation Id:** COSM35737  
**Nucleotide Change:** c.1727\_1729delCGA  
**Amino Acid Change:** p.T576del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6425B  
**Price:** \$3,500.00  
**Gene Name:** PIK3R1  
**Mutation Id:** COSM85885  
**Nucleotide Change:** c.1709\_1735del27  
**Amino Acid Change:** p.L570\_D578del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6129B



**Price:** \$3,500.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5152  
**Nucleotide Change:** c.388C>T  
**Amino Acid Change:** p.R130\*  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6130B  
**Price:** \$3,500.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5216  
**Nucleotide Change:** c.389G>T  
**Amino Acid Change:** p.R130L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6131B  
**Price:** \$3,500.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5089  
**Nucleotide Change:** c.517C>T  
**Amino Acid Change:** p.R173C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6132B  
**Price:** \$3,500.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5039  
**Nucleotide Change:** c.518G>A  
**Amino Acid Change:** p.R173H  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6134B  
**Price:** \$3,500.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM4391544  
**Nucleotide Change:** c.377C>G  
**Amino Acid Change:** p.A126G  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6127B  
**Price:** \$3,500.00

**Gene Name:**PTEN  
**Mutation Id:** COSM5219  
**Nucleotide Change:** c.388C>G  
**Amino Acid Change:** p.R130G  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6128B  
**Price:** \$3,500.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5033  
**Nucleotide Change:** c.389G>A  
**Amino Acid Change:** p.R130Q  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6133B  
**Price:** \$3,500.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5154  
**Nucleotide Change:** c.697C>T  
**Amino Acid Change:** p.R233\*  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6123B  
**Price:** \$3,500.00  
**Gene Name:**RB1  
**Mutation Id:** COSM892  
**Nucleotide Change:** c.1735C>T  
**Amino Acid Change:** p.R579\*  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6125B  
**Price:** \$3,500.00  
**Gene Name:**RB1  
**Mutation Id:** COSM878  
**Nucleotide Change:** c.751C>T  
**Amino Acid Change:** p.R251\*  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6315B  
**Price:** \$3,500.00  
**Gene Name:**RET

**Mutation Id:** COSM968  
**Nucleotide Change:** c.1894\_1899delGAGCTG  
**Amino Acid Change:** p.E632\_L633del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard RKO WT***

**Catalog:** ASO-4051  
**Price:** \$3,500.00

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6322B  
**Price:** \$3,500.00  
**Gene Name:**ROS1  
**Mutation Id:** COSM1697823  
**Nucleotide Change:** c.4924G>A  
**Amino Acid Change:** p.E1642K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6319B  
**Price:** \$3,500.00  
**Gene Name:**SMAD4  
**Mutation Id:** COSM14049  
**Nucleotide Change:** c.1067C>T  
**Amino Acid Change:** p.P356L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6320B  
**Price:** \$3,500.00  
**Gene Name:**SMAD4  
**Mutation Id:** COSM1226726  
**Nucleotide Change:** c.1066C>T  
**Amino Acid Change:** p.P356S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6372B  
**Price:** \$3,500.00  
**Gene Name:**STK11  
**Mutation Id:** COSM21360  
**Nucleotide Change:** c.1062C>G  
**Amino Acid Change:** p.F354L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6375B  
**Price:** \$3,500.00  
**Gene Name:**STK11  
**Mutation Id:** COSM20943  
**Nucleotide Change:** c.508C>T  
**Amino Acid Change:** p.Q170\*  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6376B  
**Price:** \$3,500.00  
**Gene Name:**STK11  
**Mutation Id:** COSM21354  
**Nucleotide Change:** c.511G>A  
**Amino Acid Change:** p.G171S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6091B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10662  
**Nucleotide Change:** c.743G>A  
**Amino Acid Change:** p.R248Q  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6082B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10648  
**Nucleotide Change:** c.524G>A  
**Amino Acid Change:** p.R175H  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6083B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10870  
**Nucleotide Change:** c.523C>G  
**Amino Acid Change:** p.R175G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6084B

**Price:** \$3,500.00  
**Gene Name:** TP53  
**Mutation Id:** COSM10718  
**Nucleotide Change:** c.524G>T  
**Amino Acid Change:** p.R175L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6094B  
**Price:** \$3,500.00  
**Gene Name:** TP53  
**Mutation Id:** COSM10817  
**Nucleotide Change:** c.747G>T  
**Amino Acid Change:** p.R249S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6095B  
**Price:** \$3,500.00  
**Gene Name:** TP53  
**Mutation Id:** COSM43629  
**Nucleotide Change:** c.745A>T  
**Amino Acid Change:** p.R249W  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6096B  
**Price:** \$3,500.00  
**Gene Name:** TP53  
**Mutation Id:** COSM43871  
**Nucleotide Change:** c.746G>T  
**Amino Acid Change:** p.R249M  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6097B  
**Price:** \$3,500.00  
**Gene Name:** TP53  
**Mutation Id:** COSM10668  
**Nucleotide Change:** c.745A>G  
**Amino Acid Change:** p.R249G  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6191B  
**Price:** \$3,500.00

**Gene Name:**TP53  
**Mutation Id:** COSM10690  
**Nucleotide Change:** c.473G>A  
**Amino Acid Change:** p.R158H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6192B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10714  
**Nucleotide Change:** c.473G>T  
**Amino Acid Change:** p.R158L  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6195B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10670  
**Nucleotide Change:** c.469G>T  
**Amino Acid Change:** p.V157F  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6196B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43903  
**Nucleotide Change:** c.470T>G  
**Amino Acid Change:** p.V157G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6198B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10889  
**Nucleotide Change:** c.536A>G  
**Amino Acid Change:** p.H179R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6085B  
**Price:** \$3,500.00  
**Gene Name:**TP53

**Mutation Id:** COSM10758  
**Nucleotide Change:** c.659A>G  
**Amino Acid Change:** p.Y220C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6105B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM13747  
**Nucleotide Change:** c.1146delA  
**Amino Acid Change:** p.K382fs\*>12  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6379B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10808  
**Nucleotide Change:** c.488A>G  
**Amino Acid Change:** p.Y163C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6380B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM44623  
**Nucleotide Change:** c.487T>A  
**Amino Acid Change:** p.Y163N  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6381B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43846  
**Nucleotide Change:** c.487T>C  
**Amino Acid Change:** p.Y163H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6382B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43559

**Nucleotide Change:** c.517G>T

**Amino Acid Change:** p.V173L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6383B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM11084

**Nucleotide Change:** c.517G>A

**Amino Acid Change:** p.V173M

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6387B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM43947

**Nucleotide Change:** c.614A>G

**Amino Acid Change:** p.Y205C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6388B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM43844

**Nucleotide Change:** c.613T>G

**Amino Acid Change:** p.Y205D

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6389B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM10654

**Nucleotide Change:** c.637C>T

**Amino Acid Change:** p.R213\*

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6392B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM43687

**Nucleotide Change:** c.641A>G



**Amino Acid Change:** p.H214R

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6393B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM10725

**Nucleotide Change:** c.701A>G

**Amino Acid Change:** p.Y234C

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6394B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM11152

**Nucleotide Change:** c.700T>C

**Amino Acid Change:** p.Y234H

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6399B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM10810

**Nucleotide Change:** c.725G>T

**Amino Acid Change:** p.C242F

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6436B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM45666

**Nucleotide Change:** c.810\_811insN

**Amino Acid Change:** p.E271fs\*35

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6514B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM45975

**Nucleotide Change:** c.703delA

**Amino Acid Change:** p.N235fs\*12

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6515B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM44543

**Nucleotide Change:** c.464\_465insN

**Amino Acid Change:** p.R156fs\*25

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6516B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM43546

**Nucleotide Change:** c.516\_517insN

**Amino Acid Change:** p.V173fs\*8

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6517B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM44400

**Nucleotide Change:** c.702\_703insN

**Amino Acid Change:** p.N235fs\*5

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6518B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM1318430

**Nucleotide Change:** c.516delT

**Amino Acid Change:** p.V173fs\*1

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6519B

**Price:** \$3,500.00

**Gene Name:**TP53

**Mutation Id:** COSM44361

**Nucleotide Change:** c.533\_534insN

**Amino Acid Change:** p.H178fs\*3

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6520B**Price:** \$3,500.00**Gene Name:**TP53**Mutation Id:** COSM43570**Nucleotide Change:** c.529\_546del18**Amino Acid Change:** p.P177\_C182delPHHERC**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6521B**Price:** \$3,500.00**Gene Name:**TP53**Mutation Id:** COSM1324785**Nucleotide Change:** c.530\_535delCCCACC**Amino Acid Change:** p.P177\_H178delPH**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6522B**Price:** \$3,500.00**Gene Name:**TP53**Mutation Id:** COSM46406**Nucleotide Change:** c.643delA**Amino Acid Change:** p.S215fs\*32**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6523B**Price:** \$3,500.00**Gene Name:**TP53**Mutation Id:** COSM44887**Nucleotide Change:** c.644delG**Amino Acid Change:** p.S215fs\*32**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6525B**Price:** \$3,500.00**Gene Name:**TP53**Mutation Id:** COSM69179**Nucleotide Change:** c.560-1\_583del25**Amino Acid Change:** p.?**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6526B**Price:** \$3,500.00**Gene Name:**TP53**Mutation Id:** COSM5982134**Nucleotide Change:** c.613\_614insT**Amino Acid Change:** p.Y205fs\*4**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6527B**Price:** \$3,500.00**Gene Name:**TP53**Mutation Id:** COSM1716966**Nucleotide Change:** c.613\_614insC**Amino Acid Change:** p.Y205fs\*4**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6529B**Price:** \$3,500.00**Gene Name:**CTNNB1**Mutation Id:** COSM27310**Nucleotide Change:** c.139A>T**Amino Acid Change:** p.S47C**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6530B**Price:** \$3,500.00**Gene Name:**CTNNB1**Mutation Id:** COSM1423011**Nucleotide Change:** c.132T>C**Amino Acid Change:** p.P44P**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Block Reference Standard*****Catalog:** ASE-6532B**Price:** \$3,500.00**Gene Name:**TP53**Mutation Id:** COSM45847**Nucleotide Change:** c.574\_575delCA**Amino Acid Change:** p.Q192fs\*16**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6533B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM4735408  
**Nucleotide Change:** c.571\_581del11  
**Amino Acid Change:** p.P191fs\*14  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6194B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM11087  
**Nucleotide Change:** c.472C>G  
**Amino Acid Change:** p.R158G  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6193B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43848  
**Nucleotide Change:** c.472C>T  
**Amino Acid Change:** p.R158C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6086B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10646  
**Nucleotide Change:** c.725G>A  
**Amino Acid Change:** p.C242Y  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6087B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM6932  
**Nucleotide Change:** c.733G>A  
**Amino Acid Change:** p.G245S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6090B

**Price:** \$3,500.00  
**Gene Name:** TP53  
**Mutation Id:** COSM11081  
**Nucleotide Change:** c.733G>T  
**Amino Acid Change:** p.G245C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6088B  
**Price:** \$3,500.00  
**Gene Name:** TP53  
**Mutation Id:** COSM43606  
**Nucleotide Change:** c.734G>A  
**Amino Acid Change:** p.G245D  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6089B  
**Price:** \$3,500.00  
**Gene Name:** TP53  
**Mutation Id:** COSM11196  
**Nucleotide Change:** c.734G>T  
**Amino Acid Change:** p.G245V  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6092B  
**Price:** \$3,500.00  
**Gene Name:** TP53  
**Mutation Id:** COSM10656  
**Nucleotide Change:** c.742C>T  
**Amino Acid Change:** p.R248W  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6093B  
**Price:** \$3,500.00  
**Gene Name:** TP53  
**Mutation Id:** COSM6549  
**Nucleotide Change:** c.743G>T  
**Amino Acid Change:** p.R248L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6099B  
**Price:** \$3,500.00

**Gene Name:**TP53  
**Mutation Id:** COSM10659  
**Nucleotide Change:** c.817C>T  
**Amino Acid Change:** p.R273C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6098B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10660  
**Nucleotide Change:** c.818G>A  
**Amino Acid Change:** p.R273H  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6101B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM11232  
**Nucleotide Change:** c.842A>G  
**Amino Acid Change:** p.D281G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6103B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10992  
**Nucleotide Change:** c.844C>G  
**Amino Acid Change:** p.R282G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Block Reference Standard***

**Catalog:** ASE-6104B  
**Price:** \$3,500.00  
**Gene Name:**TP53  
**Mutation Id:** COSM44338  
**Nucleotide Change:** c.845G>A  
**Amino Acid Change:** p.R282Q  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6262F  
**Price:** \$400.00  
**Gene Name:**ABL1

**Mutation Id:** COSM12578  
**Nucleotide Change:** c.1052T>C  
**Amino Acid Change:** p.M351T  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6061F

**Price:** \$400.00

**Gene Name:**AKT1

**Mutation Id:** COSM33765

**Nucleotide Change:** c.49G>A

**Amino Acid Change:** p.E17K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6308F

**Price:** \$400.00

**Gene Name:**ALK

**Mutation Id:** COSM28059

**Nucleotide Change:** c.3521T>G

**Amino Acid Change:** p.F1174C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6309F

**Price:** \$400.00

**Gene Name:**ALK

**Mutation Id:** COSM28056

**Nucleotide Change:** c.3824G>A

**Amino Acid Change:** p.R1275Q

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6310F

**Price:** \$400.00

**Gene Name:**ALK

**Mutation Id:** COSM28060

**Nucleotide Change:** c.3824G>T

**Amino Acid Change:** p.R1275L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6311F

**Price:** \$400.00

**Gene Name:**ALK

**Mutation Id:** COSM99137



**Nucleotide Change:** c.3586C>A

**Amino Acid Change:** p.L1196M

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6148F

**Price:** \$400.00

**Gene Name:**APC

**Mutation Id:** COSM13864

**Nucleotide Change:** c.4393\_4394delAG

**Amino Acid Change:** p.S1465fs\*3

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6144F

**Price:** \$400.00

**Gene Name:**APC

**Mutation Id:** COSM13127

**Nucleotide Change:** c.4348C>T

**Amino Acid Change:** p.R1450\*

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6412F

**Price:** \$400.00

**Gene Name:**APC

**Mutation Id:** COSM41607

**Nucleotide Change:** c.4090\_4091insA

**Amino Acid Change:** p.S1364fs\*11

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6435F

**Price:** \$400.00

**Gene Name:**APC

**Mutation Id:** COSM18761

**Nucleotide Change:** c.4090delA

**Amino Acid Change:** p.S1364fs\*51

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6150F

**Price:** \$400.00

**Gene Name:**APC

**Mutation Id:** COSM13134

**Nucleotide Change:** c.637C>T

**Amino Acid Change:** p.R213\*

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3047

**Price:** \$400.00

**Gene Name:**BRAF

**Mutation Id:** COSM476

**Nucleotide Change:** 1799T>A

**Amino Acid Change:** V600E

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3044

**Price:** \$400.00

**Gene Name:**BRAF

**Mutation Id:** COSM473

**Nucleotide Change:** 1798\_1799GT>AA

**Amino Acid Change:** V600K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3045

**Price:** \$400.00

**Gene Name:**BRAF

**Mutation Id:** COSM474

**Nucleotide Change:** 1798\_1799GT>AG

**Amino Acid Change:** V600R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3049

**Price:** \$400.00

**Gene Name:**BRAF

**Mutation Id:** COSM1130

**Nucleotide Change:** 1798G>A

**Amino Acid Change:** V600M

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3046

**Price:** \$400.00

**Gene Name:**BRAF

**Mutation Id:** COSM475

**Nucleotide Change:** 1799\_1800TG>AA

**Amino Acid Change:** V600E

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3048

**Price:** \$400.00

**Gene Name:** BRAF

**Mutation Id:** COSM477

**Nucleotide Change:** 1799\_1800TG>AT

**Amino Acid Change:** V600D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3050

**Price:** \$400.00

**Gene Name:** BRAF

**Mutation Id:** COSM6137

**Nucleotide Change:** 1799T>G

**Amino Acid Change:** V600G

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6108F

**Price:** \$400.00

**Gene Name:** BRCA1

**Mutation Id:** COSM35891

**Nucleotide Change:** c.5263\_5264insC(5382insC)

**Amino Acid Change:** p.Q1756fs\*74

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6107F

**Price:** \$400.00

**Gene Name:** BRCA1

**Mutation Id:** COSM3190163

**Nucleotide Change:** c.68\_69delAG

**Amino Acid Change:** p.E23fs\*17

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6106F

**Price:** \$400.00

**Gene Name:** BRCA1

**Mutation Id:** COSM78883

**Nucleotide Change:** c.5503C>T

**Amino Acid Change:** p.R1835\*

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6113F**Price:** \$400.00**Gene Name:**BRCA1**Mutation Id:** rs80357997**Nucleotide Change:** c.5137delG**Amino Acid Change:** p.Val1713Terfs**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6114F**Price:** \$400.00**Gene Name:**BRCA1**Mutation Id:** ClinVar55412**Nucleotide Change:** c.5138T>C**Amino Acid Change:** p.V1713A**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6115F**Price:** \$400.00**Gene Name:**BRCA1**Mutation Id:** COSM148277**Nucleotide Change:** c.3548A>G**Amino Acid Change:** p.K1183R**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6116F**Price:** \$400.00**Gene Name:**BRCA1**Mutation Id:** COSM148278**Nucleotide Change:** c.2612C>T**Amino Acid Change:** p.P871L**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6112F**Price:** \$400.00**Gene Name:**BRCA1**Mutation Id:** OMIM: 113705.0025**Nucleotide Change:** c.3481\_3491del11**Amino Acid Change:** p.E1161Fs**Frequency:** Heterozygous

**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6119F**Price:** \$400.00**Gene Name:**BRCA2**Mutation Id:** COSM1738242**Nucleotide Change:** c.7934delG**Amino Acid Change:** p.R2645fs\*3**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6337F**Price:** \$400.00**Gene Name:**BRCA2**Mutation Id:** COSM6048457**Nucleotide Change:** c.5067delA**Amino Acid Change:** p.K1691fs\*15**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6513F**Price:** \$400.00**Gene Name:**BRCA2**Mutation Id:** COSM5078975**Nucleotide Change:** c.5066\_5067insA**Amino Acid Change:** p.W1692fs\*3**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6294F**Price:** \$400.00**Gene Name:**CDH1**Mutation Id:** COSM972800**Nucleotide Change:** c.2195G>A**Amino Acid Change:** p.R732Q**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6295F**Price:** \$400.00**Gene Name:**CDX2**Mutation Id:** COSM1366182**Nucleotide Change:** c.916delG**Amino Acid Change:** p.V306fs\*2**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard**

**Catalog:** ASE-6137F  
**Price:** \$400.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5663  
**Nucleotide Change:** c.133T>C  
**Amino Acid Change:** p.S45P  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6138F  
**Price:** \$400.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5662  
**Nucleotide Change:** c.110C>T  
**Amino Acid Change:** p.S37F  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6142F  
**Price:** \$400.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5676  
**Nucleotide Change:** c.122C>T  
**Amino Acid Change:** p.T41I  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6524F  
**Price:** \$400.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM6132  
**Nucleotide Change:** c.136\_141delCTGAGT  
**Amino Acid Change:** p.L46\_S47del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6528F  
**Price:** \$400.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5990184  
**Nucleotide Change:** c.116\_138del23  
**Amino Acid Change:** p.A39fs\*3  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6143F

**Price:** \$400.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM6128  
**Nucleotide Change:** c.133\_135delTCT  
**Amino Acid Change:** p.S45del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6052F  
**Price:** \$400.00  
**Gene Name:**PIK3CA  
**Mutation Id:** COSM776  
**Nucleotide Change:** c.3140A>T  
**Amino Acid Change:** p.H1047L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6140F  
**Price:** \$400.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5673  
**Nucleotide Change:** c.98C>A  
**Amino Acid Change:** p.S33Y  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6139F  
**Price:** \$400.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM5677  
**Nucleotide Change:** c.98C>G  
**Amino Acid Change:** p.S33C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3008  
**Price:** \$400.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12384  
**Nucleotide Change:** 2237\_2255>T  
**Amino Acid Change:** E746\_S752>V  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3003  
**Price:** \$400.00

**Gene Name:**EGFR  
**Mutation Id:** COSM6255  
**Nucleotide Change:** 2239\_2256del18  
**Amino Acid Change:** L747\_S752del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3029

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM6240

**Nucleotide Change:** c.2369C>T

**Amino Acid Change:** p.T790M

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6183F

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM13193

**Nucleotide Change:** c.2477A>G

**Amino Acid Change:** p.N826S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6343F

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM12988

**Nucleotide Change:** c.2125G>A

**Amino Acid Change:** p.E709K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6346F

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM236670

**Nucleotide Change:** c.1476C>A

**Amino Acid Change:** p.S492R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3000

**Price:** \$400.00

**Gene Name:**EGFR



**Mutation Id:** COSM6252  
**Nucleotide Change:** 2155G>A  
**Amino Acid Change:** G719S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3001  
**Price:** \$400.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM6253  
**Nucleotide Change:** 2155G>T  
**Amino Acid Change:** G719C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3002  
**Price:** \$400.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM6239  
**Nucleotide Change:** 2156G>C  
**Amino Acid Change:** G719A  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3015  
**Price:** \$400.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM26038  
**Nucleotide Change:** 2233\_2247del15  
**Amino Acid Change:** K745\_E749delKELRE  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3024  
**Price:** \$400.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM13550  
**Nucleotide Change:** 2235\_2248>AATTC  
**Amino Acid Change:** E746\_A750>IP  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3016  
**Price:** \$400.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM6223

**Nucleotide Change:** 2235\_2249del15  
**Amino Acid Change:** E746\_A750delIELREA  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3014  
**Price:** \$400.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM13551  
**Nucleotide Change:** 2235\_2252>AAT  
**Amino Acid Change:** E746\_T751>I  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3017  
**Price:** \$400.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM6225  
**Nucleotide Change:** 2236\_2250del15  
**Amino Acid Change:** E746\_A750delIELREA  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3009  
**Price:** \$400.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM12728  
**Nucleotide Change:** 2236\_2253del18  
**Amino Acid Change:** E746\_T751del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3010  
**Price:** \$400.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM12678  
**Nucleotide Change:** 2237\_2251del15  
**Amino Acid Change:** E746\_T751>A  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3013  
**Price:** \$400.00  
**Gene Name:** EGFR  
**Mutation Id:** COSM12386  
**Nucleotide Change:** 2237\_2252>T

**Amino Acid Change:** E746\_T751>V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3007

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM12367

**Nucleotide Change:** 2237\_2254del18

**Amino Acid Change:** E746\_S752>A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3022

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM12422

**Nucleotide Change:** 2238\_2248>GC

**Amino Acid Change:** L747\_A750>P

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3020

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM12419

**Nucleotide Change:** 2238\_2252>GCA

**Amino Acid Change:** L747\_T751>Q

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3005

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM6220

**Nucleotide Change:** 2238\_2255del18

**Amino Acid Change:** E746\_S752>D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3023

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM6218

**Nucleotide Change:** 2239\_2247del9

**Amino Acid Change:** L747\_E749delLRE

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3021

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM12382

**Nucleotide Change:** 2239\_2248TTAAGAGAAG>C

**Amino Acid Change:** L747\_A750>P

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3018

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM12383

**Nucleotide Change:** 2239\_2251>C

**Amino Acid Change:** L747\_T751>P

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3006

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM12387

**Nucleotide Change:** 2239\_2258>CA

**Amino Acid Change:** L747\_P753>Q

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3019

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM6210

**Nucleotide Change:** 2240\_2251del12

**Amino Acid Change:** L747\_T751>S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3012

**Price:** \$400.00

**Gene Name:**EGFR

**Mutation Id:** COSM12369 (COSM6254)

**Nucleotide Change:** 2240\_2254del15

**Amino Acid Change:** L747\_T751del

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3004**Price:** \$400.00**Gene Name:**EGFR**Mutation Id:** COSM12370**Nucleotide Change:** 2240\_2257del18**Amino Acid Change:** L747\_P753>S**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3025**Price:** \$400.00**Gene Name:**EGFR**Mutation Id:** COSM6241**Nucleotide Change:** 2303G>T**Amino Acid Change:** S768I**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3026**Price:** \$400.00**Gene Name:**EGFR**Mutation Id:** COSM12376**Nucleotide Change:** 2307\_2308insGCCAGCGTG**Amino Acid Change:** V769\_D770insASV**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3027**Price:** \$400.00**Gene Name:**EGFR**Mutation Id:** COSM12378**Nucleotide Change:** 2310\_2311insGGT**Amino Acid Change:** D770\_N771insG**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3028**Price:** \$400.00**Gene Name:**EGFR**Mutation Id:** COSM12377**Nucleotide Change:** 2319\_2320insCAC**Amino Acid Change:** H773\_V774insH**Frequency:** Homozygous

**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASO-3030**Price:** \$400.00**Gene Name:**EGFR**Mutation Id:** COSM6224**Nucleotide Change:** 2573T>G**Amino Acid Change:** L858R**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASO-3031**Price:** \$400.00**Gene Name:**EGFR**Mutation Id:** COSM6213**Nucleotide Change:** 2582T>A**Amino Acid Change:** L861Q**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6182F**Price:** \$400.00**Gene Name:**EGFR**Mutation Id:** COSM18422**Nucleotide Change:** c.2360A>G**Amino Acid Change:** p.Q787R**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6177F**Price:** \$400.00**Gene Name:**EGFR**Mutation Id:** COSM6493937/6240**Nucleotide Change:** c.2389T>A/c.2369C>T**Amino Acid Change:** p.C797S/T790M**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6185F**Price:** \$400.00**Gene Name:**EGFR**Mutation Id:** COSM85894**Nucleotide Change:** c.2527G>A**Amino Acid Change:** p.V843I**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Slide Reference Standard**

**Catalog:** ASE-6176F  
**Price:** \$400.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM5945664/6240  
**Nucleotide Change:** c.2390G>C/c.2369C>T  
**Amino Acid Change:** p.C797S/T790M  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6175F  
**Price:** \$400.00  
**Gene Name:**ERBB2  
**Mutation Id:** COSM12553  
**Nucleotide Change:** c.2326\_2327insTGT  
**Amino Acid Change:** p.G776>VC  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6171F  
**Price:** \$400.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM1074635  
**Nucleotide Change:** c.1609T>A  
**Amino Acid Change:** p.Y537N  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6170F  
**Price:** \$400.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM1074639  
**Nucleotide Change:** c.1610A>C  
**Amino Acid Change:** p.Y537S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6172F  
**Price:** \$400.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM1074637  
**Nucleotide Change:** c.1610A>G  
**Amino Acid Change:** p.Y537C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6169F

**Price:** \$400.00  
**Gene Name:**ESR1  
**Mutation Id:** COSM94250  
**Nucleotide Change:** c.1613A>G  
**Amino Acid Change:** p.D538G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6354F  
**Price:** \$400.00  
**Gene Name:**FBXW7  
**Mutation Id:** COSM22971  
**Nucleotide Change:** c.832C>T  
**Amino Acid Change:** p.R278\*  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6355F  
**Price:** \$400.00  
**Gene Name:**FBXW7  
**Mutation Id:** COSM22964  
**Nucleotide Change:** c.1099C>T  
**Amino Acid Change:** p.R367\*  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6247F  
**Price:** \$400.00  
**Gene Name:**FGFR2  
**Mutation Id:** COSM36903  
**Nucleotide Change:** c.755C>G  
**Amino Acid Change:** p.S252W  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6250F  
**Price:** \$400.00  
**Gene Name:**FGFR2  
**Mutation Id:** COSM36904  
**Nucleotide Change:** c.1124A>G  
**Amino Acid Change:** p.Y375C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6251F  
**Price:** \$400.00



**Gene Name:**FGFR2  
**Mutation Id:** COSM36906  
**Nucleotide Change:** c.1144T>C  
**Amino Acid Change:** p.C382R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6208F

**Price:** \$400.00

**Gene Name:**FGFR3

**Mutation Id:** COSM714

**Nucleotide Change:** c.742C>T

**Amino Acid Change:** p.R248C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6209F

**Price:** \$400.00

**Gene Name:**FGFR3

**Mutation Id:** COSM718

**Nucleotide Change:** c.1118A>G

**Amino Acid Change:** p.Y373C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6211F

**Price:** \$400.00

**Gene Name:**FGFR3

**Mutation Id:** COSM17461

**Nucleotide Change:** c.1111A>T

**Amino Acid Change:** p.S371C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6212F

**Price:** \$400.00

**Gene Name:**FGFR3

**Mutation Id:** COSM24842

**Nucleotide Change:** c.1138G>A

**Amino Acid Change:** p.G380R

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6154F

**Price:** \$400.00

**Gene Name:**FLT3

**Mutation Id:** COSM785  
**Nucleotide Change:** c.2503G>C  
**Amino Acid Change:** p.D835H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6157F  
**Price:** \$400.00  
**Gene Name:**FLT3  
**Mutation Id:** COSM19836  
**Nucleotide Change:** c.2508\_2510delCAT  
**Amino Acid Change:** p.I836del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6279F  
**Price:** \$400.00  
**Gene Name:**GNAQ  
**Mutation Id:** COSM28758  
**Nucleotide Change:** c.626A>C  
**Amino Acid Change:** p.Q209P  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6281F  
**Price:** \$400.00  
**Gene Name:**GNAQ  
**Mutation Id:** COSM28760  
**Nucleotide Change:** c.626A>G  
**Amino Acid Change:** p.Q209R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6278F  
**Price:** \$400.00  
**Gene Name:**GNAQ  
**Mutation Id:** COSM28757  
**Nucleotide Change:** c.626A>T  
**Amino Acid Change:** p.Q209L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6285F  
**Price:** \$400.00  
**Gene Name:**GNAS  
**Mutation Id:** COSM27899

**Nucleotide Change:** c.601C>A

**Amino Acid Change:** p.R201S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6286F

**Price:** \$400.00

**Gene Name:**GNAS

**Mutation Id:** COSM27895

**Nucleotide Change:** c.602G>A

**Amino Acid Change:** p.R201H

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6468F

**Price:** \$400.00

**Gene Name:**GNAS

**Mutation Id:** rs1060500285

**Nucleotide Change:** c.686A>G

**Amino Acid Change:** p.D229G

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard HCT116 WT***

**Catalog:** ASO-3052

**Price:** \$400.00

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6076F

**Price:** \$400.00

**Gene Name:**HRAS

**Mutation Id:** COSM483

**Nucleotide Change:** c.35G>T

**Amino Acid Change:** p.G12V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6077F

**Price:** \$400.00

**Gene Name:**HRAS

**Mutation Id:** COSM484

**Nucleotide Change:** c.35G>A

**Amino Acid Change:** p.G12D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6361F

**Price:** \$400.00  
**Gene Name:**HRAS  
**Mutation Id:** COSM502  
**Nucleotide Change:** c.183G>T  
**Amino Acid Change:** p.Q61H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6079F  
**Price:** \$400.00  
**Gene Name:**HRAS  
**Mutation Id:** COSM496  
**Nucleotide Change:** c.181C>A  
**Amino Acid Change:** p.Q61K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6078F  
**Price:** \$400.00  
**Gene Name:**HRAS  
**Mutation Id:** COSM486  
**Nucleotide Change:** c.37G>C  
**Amino Acid Change:** p.G13R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6080F  
**Price:** \$400.00  
**Gene Name:**HRAS  
**Mutation Id:** COSM499  
**Nucleotide Change:** c.182A>G  
**Amino Acid Change:** p.Q61R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6226F  
**Price:** \$400.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM41877  
**Nucleotide Change:** c.418C>T  
**Amino Acid Change:** p.R140W  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6225F  
**Price:** \$400.00

**Gene Name:**IDH2  
**Mutation Id:** COSM41590  
**Nucleotide Change:** c.419G>A  
**Amino Acid Change:** p.R140Q  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6227F  
**Price:** \$400.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM41875  
**Nucleotide Change:** c.419G>T  
**Amino Acid Change:** p.R140L  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6232F  
**Price:** \$400.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM33731  
**Nucleotide Change:** c.514A>G  
**Amino Acid Change:** p.R172G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6231F  
**Price:** \$400.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM34039  
**Nucleotide Change:** c.514A>T  
**Amino Acid Change:** p.R172W  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6228F  
**Price:** \$400.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM33733  
**Nucleotide Change:** c.515G>A  
**Amino Acid Change:** p.R172K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6229F  
**Price:** \$400.00  
**Gene Name:**IDH2

**Mutation Id:** COSM33732  
**Nucleotide Change:** c.515G>T  
**Amino Acid Change:** p.R172M  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6230F  
**Price:** \$400.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM34090  
**Nucleotide Change:** c.516G>T  
**Amino Acid Change:** p.R172S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6120F  
**Price:** \$400.00  
**Gene Name:**JAK2  
**Mutation Id:** COSM12600  
**Nucleotide Change:** c.1849G>T  
**Amino Acid Change:** p.V617F  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6121F  
**Price:** \$400.00  
**Gene Name:**JAK2  
**Mutation Id:** COSM4391514  
**Nucleotide Change:** c.1843G>T  
**Amino Acid Change:** p.V615L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6122F  
**Price:** \$400.00  
**Gene Name:**JAK2  
**Mutation Id:** COSM29117  
**Nucleotide Change:** c.1849G>A  
**Amino Acid Change:** p.V617I  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6160F  
**Price:** \$400.00  
**Gene Name:**KIT  
**Mutation Id:** COSM1226

**Nucleotide Change:** c.1670\_1675delGGAAGG

**Amino Acid Change:** p.W557\_V559>F

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6162F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM1314

**Nucleotide Change:** c.2447A>T

**Amino Acid Change:** p.D816V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6163F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM1310

**Nucleotide Change:** c.2446G>T

**Amino Acid Change:** p.D816Y

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6164F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM1311

**Nucleotide Change:** c.2446G>C

**Amino Acid Change:** p.D816H

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6166F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM1255

**Nucleotide Change:** c.1676T>C

**Amino Acid Change:** p.V559A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6167F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM1257

**Nucleotide Change:** c.1679T>A

**Amino Acid Change:** p.V560D

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6159F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM1221

**Nucleotide Change:** c.1669T>G

**Amino Acid Change:** p.W557G

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6165F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM1252

**Nucleotide Change:** c.1676T>A

**Amino Acid Change:** p.V559D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6410F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM21979

**Nucleotide Change:** c.2446\_2447GA>AT

**Amino Acid Change:** p.D816I

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6411F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM1254

**Nucleotide Change:** c.1676\_1684del9

**Amino Acid Change:** p.V559\_E561del

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6423F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM1256

**Nucleotide Change:** c.1678\_1680delGTT

**Amino Acid Change:** p.V560del



**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6531F

**Price:** \$400.00

**Gene Name:**KIT

**Mutation Id:** COSM1247

**Nucleotide Change:** c.1675\_1677delGTT

**Amino Acid Change:** p.V559del

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3038

**Price:** \$400.00

**Gene Name:**KRAS

**Mutation Id:** COSM527

**Nucleotide Change:** 37G>T

**Amino Acid Change:** G13C

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6062F

**Price:** \$400.00

**Gene Name:**KRAS

**Mutation Id:** COSM554

**Nucleotide Change:** c.183A>C

**Amino Acid Change:** p.Q61H

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3033

**Price:** \$400.00

**Gene Name:**KRAS

**Mutation Id:** COSM517

**Nucleotide Change:** 34G>A

**Amino Acid Change:** G12S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASO-3034

**Price:** \$400.00

**Gene Name:**KRAS

**Mutation Id:** COSM518

**Nucleotide Change:** 34G>C

**Amino Acid Change:** G12R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3032**Price:** \$400.00**Gene Name:** KRAS**Mutation Id:** COSM516**Nucleotide Change:** 34G>T**Amino Acid Change:** G12C**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3036**Price:** \$400.00**Gene Name:** KRAS**Mutation Id:** COSM521**Nucleotide Change:** 35G>A**Amino Acid Change:** G12D**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3037**Price:** \$400.00**Gene Name:** KRAS**Mutation Id:** COSM522**Nucleotide Change:** 35G>C**Amino Acid Change:** G12A**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3035**Price:** \$400.00**Gene Name:** KRAS**Mutation Id:** COSM520**Nucleotide Change:** 35G>T**Amino Acid Change:** G12V**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3039**Price:** \$400.00**Gene Name:** KRAS**Mutation Id:** COSM528**Nucleotide Change:** 37G>A**Amino Acid Change:** G13S**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3040**Price:** \$400.00**Gene Name:**KRAS**Mutation Id:** COSM529**Nucleotide Change:** 37G>C**Amino Acid Change:** G13R**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3041**Price:** \$400.00**Gene Name:**KRAS**Mutation Id:** COSM532**Nucleotide Change:** 38G>A**Amino Acid Change:** G13D**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3042**Price:** \$400.00**Gene Name:**KRAS**Mutation Id:** COSM533**Nucleotide Change:** 38G>C**Amino Acid Change:** G13A**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASO-3043**Price:** \$400.00**Gene Name:**KRAS**Mutation Id:** COSM534**Nucleotide Change:** 38G>T**Amino Acid Change:** G13V**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6201F**Price:** \$400.00**Gene Name:**MAP2K1**Mutation Id:** COSM235614**Nucleotide Change:** c.370C>T**Amino Acid Change:** p.P124S**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6204F  
**Price:** \$400.00  
**Gene Name:**MAP2K1  
**Mutation Id:** COSM232755  
**Nucleotide Change:** c.607G>A  
**Amino Acid Change:** p.E203K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6202F  
**Price:** \$400.00  
**Gene Name:**MAP2K1  
**Mutation Id:** COSM1315861  
**Nucleotide Change:** c.371C>T  
**Amino Acid Change:** p.P124L  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6205F  
**Price:** \$400.00  
**Gene Name:**MAP2K1  
**Mutation Id:** COSM1235478  
**Nucleotide Change:** c.171G>T  
**Amino Acid Change:** p.K57N  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6299F  
**Price:** \$400.00  
**Gene Name:**MET  
**Mutation Id:** COSM707  
**Nucleotide Change:** c.3029C>T  
**Amino Acid Change:** p.T1010I  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6300F  
**Price:** \$400.00  
**Gene Name:**MET  
**Mutation Id:** COSM699  
**Nucleotide Change:** c.3743A>G  
**Amino Acid Change:** p.Y1248C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6303F

**Price:** \$400.00  
**Gene Name:**MET  
**Mutation Id:** COSM706  
**Nucleotide Change:** c.504G>T  
**Amino Acid Change:** p.E168D  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6296F  
**Price:** \$400.00  
**Gene Name:**MLH1  
**Mutation Id:** COSM2985326  
**Nucleotide Change:** c.967C>A  
**Amino Acid Change:** p.L323M  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6297F  
**Price:** \$400.00  
**Gene Name:**MLH1  
**Mutation Id:** COSM26085  
**Nucleotide Change:** c.1151T>A  
**Amino Acid Change:** p.V384D  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6271F  
**Price:** \$400.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM12772  
**Nucleotide Change:** c.4721T>C  
**Amino Acid Change:** p.L1574P  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6272F  
**Price:** \$400.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM13047  
**Nucleotide Change:** c.4732\_4734delGTG  
**Amino Acid Change:** p.V1578delV  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6273F  
**Price:** \$400.00

**Gene Name:**NOTCH1  
**Mutation Id:** COSM13042  
**Nucleotide Change:** c.4778T>C  
**Amino Acid Change:** p.L1593P  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6275F  
**Price:** \$400.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM12771  
**Nucleotide Change:** c.4799T>C  
**Amino Acid Change:** p.L1600P  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6277F  
**Price:** \$400.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM33747  
**Nucleotide Change:** c.5094C>T  
**Amino Acid Change:** p.D1698D  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6068F  
**Price:** \$400.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM573  
**Nucleotide Change:** c.38G>A  
**Amino Acid Change:** p.G13D  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6366F  
**Price:** \$400.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM585  
**Nucleotide Change:** c.183A>T  
**Amino Acid Change:** p.Q61H  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6368F  
**Price:** \$400.00  
**Gene Name:**NRAS

**Mutation Id:** COSM566  
**Nucleotide Change:** c.35G>T  
**Amino Acid Change:** p.G12V  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6072F  
**Price:** \$400.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM580  
**Nucleotide Change:** c.181C>A  
**Amino Acid Change:** p.Q61K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6071F  
**Price:** \$400.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM584  
**Nucleotide Change:** c.182A>G  
**Amino Acid Change:** p.Q61R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6073F  
**Price:** \$400.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM583  
**Nucleotide Change:** c.182A>T  
**Amino Acid Change:** p.Q61L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6200F  
**Price:** \$400.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM5044298  
**Nucleotide Change:** c.183\_183delA  
**Amino Acid Change:** p.E62fs\*6  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6066F  
**Price:** \$400.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM563

**Nucleotide Change:** c.34G>A

**Amino Acid Change:** p.G12S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6067F

**Price:** \$400.00

**Gene Name:**NRAS

**Mutation Id:** COSM562

**Nucleotide Change:** c.34G>T

**Amino Acid Change:** p.G12C

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6065F

**Price:** \$400.00

**Gene Name:**NRAS

**Mutation Id:** COSM564

**Nucleotide Change:** c.35G>A

**Amino Acid Change:** p.G12D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6069F

**Price:** \$400.00

**Gene Name:**NRAS

**Mutation Id:** COSM569

**Nucleotide Change:** c.37G>C

**Amino Acid Change:** p.G13R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6254F

**Price:** \$400.00

**Gene Name:**PDGFRA

**Mutation Id:** COSM22413

**Nucleotide Change:** c.2472C>T

**Amino Acid Change:** p.V824V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6255F

**Price:** \$400.00

**Gene Name:**PDGFRA

**Mutation Id:** COSM736

**Nucleotide Change:** c.2525A>T



**Amino Acid Change:** p.D842V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6256F

**Price:** \$400.00

**Gene Name:**PDGFRA

**Mutation Id:** COSM737

**Nucleotide Change:** c.2524\_2535del12

**Amino Acid Change:** p.I843\_D846delIMHD

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6257F

**Price:** \$400.00

**Gene Name:**PDGFRA

**Mutation Id:** COSM12400

**Nucleotide Change:** c.2527\_2538del12

**Amino Acid Change:** p.I843\_D846delIMHD

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6058F

**Price:** \$400.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM746

**Nucleotide Change:** c.263G>A

**Amino Acid Change:** p.R88Q

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6056F

**Price:** \$400.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM12458

**Nucleotide Change:** c.1634A>C

**Amino Acid Change:** p.E545A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6060F

**Price:** \$400.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM757

**Nucleotide Change:** c.1258T>C

**Amino Acid Change:** p.C420R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6053F

**Price:** \$400.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM760

**Nucleotide Change:** c.1624G>A

**Amino Acid Change:** p.E542K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6054F

**Price:** \$400.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM763

**Nucleotide Change:** c.1633G>A

**Amino Acid Change:** p.E545K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6055F

**Price:** \$400.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM764

**Nucleotide Change:** c.1634A>G

**Amino Acid Change:** p.E545G

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6057F

**Price:** \$400.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM766

**Nucleotide Change:** c.1636C>A

**Amino Acid Change:** p.Q546K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6051F

**Price:** \$400.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM775

**Nucleotide Change:** c.3140A>G

**Amino Acid Change:** p.H1047R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6070F**Price:** \$400.00**Gene Name:**NRAS**Mutation Id:** COSM574**Nucleotide Change:** c.38G>T**Amino Acid Change:** p.G13V**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6243F**Price:** \$400.00**Gene Name:**PIK3R1**Mutation Id:** COSM1069619**Nucleotide Change:** c.1718T>C**Amino Acid Change:** p.L573P**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6244F**Price:** \$400.00**Gene Name:**PIK3R1**Mutation Id:** COSM85927**Nucleotide Change:** c.1721G>T**Amino Acid Change:** p.R574I**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6245F**Price:** \$400.00**Gene Name:**PIK3R1**Mutation Id:** COSM1069623**Nucleotide Change:** c.1721\_1722insA**Amino Acid Change:** p.T576fs\*26**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6246F**Price:** \$400.00**Gene Name:**PIK3R1**Mutation Id:** COSM35737**Nucleotide Change:** c.1727\_1729delCGA**Amino Acid Change:** p.T576del**Frequency:** Homozygous

**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6425F**Price:** \$400.00**Gene Name:**PIK3R1**Mutation Id:** COSM85885**Nucleotide Change:** c.1709\_1735del27**Amino Acid Change:** p.L570\_D578del**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6129F**Price:** \$400.00**Gene Name:**PTEN**Mutation Id:** COSM5152**Nucleotide Change:** c.388C>T**Amino Acid Change:** p.R130\***Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6130F**Price:** \$400.00**Gene Name:**PTEN**Mutation Id:** COSM5216**Nucleotide Change:** c.389G>T**Amino Acid Change:** p.R130L**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6131F**Price:** \$400.00**Gene Name:**PTEN**Mutation Id:** COSM5089**Nucleotide Change:** c.517C>T**Amino Acid Change:** p.R173C**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6132F**Price:** \$400.00**Gene Name:**PTEN**Mutation Id:** COSM5039**Nucleotide Change:** c.518G>A**Amino Acid Change:** p.R173H**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Slide Reference Standard**

**Catalog:** ASE-6134F  
**Price:** \$400.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM4391544  
**Nucleotide Change:** c.377C>G  
**Amino Acid Change:** p.A126G  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6127F  
**Price:** \$400.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5219  
**Nucleotide Change:** c.388C>G  
**Amino Acid Change:** p.R130G  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6128F  
**Price:** \$400.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5033  
**Nucleotide Change:** c.389G>A  
**Amino Acid Change:** p.R130Q  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6133F  
**Price:** \$400.00  
**Gene Name:**PTEN  
**Mutation Id:** COSM5154  
**Nucleotide Change:** c.697C>T  
**Amino Acid Change:** p.R233\*  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6123F  
**Price:** \$400.00  
**Gene Name:**RB1  
**Mutation Id:** COSM892  
**Nucleotide Change:** c.1735C>T  
**Amino Acid Change:** p.R579\*  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6125F

**Price:** \$400.00  
**Gene Name:**RB1  
**Mutation Id:** COSM878  
**Nucleotide Change:** c.751C>T  
**Amino Acid Change:** p.R251\*  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6315F  
**Price:** \$400.00  
**Gene Name:**RET  
**Mutation Id:** COSM968  
**Nucleotide Change:** c.1894\_1899delGAGCTG  
**Amino Acid Change:** p.E632\_L633del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard RKO WT***

**Catalog:** ASO-3051  
**Price:** \$400.00

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6322F  
**Price:** \$400.00  
**Gene Name:**ROS1  
**Mutation Id:** COSM1697823  
**Nucleotide Change:** c.4924G>A  
**Amino Acid Change:** p.E1642K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6319F  
**Price:** \$400.00  
**Gene Name:**SMAD4  
**Mutation Id:** COSM14049  
**Nucleotide Change:** c.1067C>T  
**Amino Acid Change:** p.P356L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6320F  
**Price:** \$400.00  
**Gene Name:**SMAD4  
**Mutation Id:** COSM1226726  
**Nucleotide Change:** c.1066C>T  
**Amino Acid Change:** p.P356S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6372F**Price:** \$400.00**Gene Name:**STK11**Mutation Id:** COSM21360**Nucleotide Change:** c.1062C>G**Amino Acid Change:** p.F354L**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6375F**Price:** \$400.00**Gene Name:**STK11**Mutation Id:** COSM20943**Nucleotide Change:** c.508C>T**Amino Acid Change:** p.Q170\***Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6376F**Price:** \$400.00**Gene Name:**STK11**Mutation Id:** COSM21354**Nucleotide Change:** c.511G>A**Amino Acid Change:** p.G171S**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6091F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM10662**Nucleotide Change:** c.743G>A**Amino Acid Change:** p.R248Q**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6082F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM10648**Nucleotide Change:** c.524G>A**Amino Acid Change:** p.R175H**Frequency:** Heterozygous

**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6083F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM10870**Nucleotide Change:** c.523C>G**Amino Acid Change:** p.R175G**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6084F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM10718**Nucleotide Change:** c.524G>T**Amino Acid Change:** p.R175L**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6094F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM10817**Nucleotide Change:** c.747G>T**Amino Acid Change:** p.R249S**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6095F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM43629**Nucleotide Change:** c.745A>T**Amino Acid Change:** p.R249W**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6096F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM43871**Nucleotide Change:** c.746G>T**Amino Acid Change:** p.R249M**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Slide Reference Standard**



**Catalog:** ASE-6097F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10668  
**Nucleotide Change:** c.745A>G  
**Amino Acid Change:** p.R249G  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6191F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10690  
**Nucleotide Change:** c.473G>A  
**Amino Acid Change:** p.R158H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6192F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10714  
**Nucleotide Change:** c.473G>T  
**Amino Acid Change:** p.R158L  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6195F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10670  
**Nucleotide Change:** c.469G>T  
**Amino Acid Change:** p.V157F  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6196F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43903  
**Nucleotide Change:** c.470T>G  
**Amino Acid Change:** p.V157G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6198F

**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10889  
**Nucleotide Change:** c.536A>G  
**Amino Acid Change:** p.H179R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6085F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10758  
**Nucleotide Change:** c.659A>G  
**Amino Acid Change:** p.Y220C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6105F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM13747  
**Nucleotide Change:** c.1146delA  
**Amino Acid Change:** p.K382fs\*>12  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6379F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10808  
**Nucleotide Change:** c.488A>G  
**Amino Acid Change:** p.Y163C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6380F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM44623  
**Nucleotide Change:** c.487T>A  
**Amino Acid Change:** p.Y163N  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6381F  
**Price:** \$400.00

**Gene Name:**TP53  
**Mutation Id:** COSM43846  
**Nucleotide Change:** c.487T>C  
**Amino Acid Change:** p.Y163H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6382F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43559  
**Nucleotide Change:** c.517G>T  
**Amino Acid Change:** p.V173L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6383F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM11084  
**Nucleotide Change:** c.517G>A  
**Amino Acid Change:** p.V173M  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6387F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43947  
**Nucleotide Change:** c.614A>G  
**Amino Acid Change:** p.Y205C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6388F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43844  
**Nucleotide Change:** c.613T>G  
**Amino Acid Change:** p.Y205D  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6389F  
**Price:** \$400.00  
**Gene Name:**TP53

**Mutation Id:** COSM10654  
**Nucleotide Change:** c.637C>T  
**Amino Acid Change:** p.R213\*  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6392F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43687  
**Nucleotide Change:** c.641A>G  
**Amino Acid Change:** p.H214R  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6393F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10725  
**Nucleotide Change:** c.701A>G  
**Amino Acid Change:** p.Y234C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6394F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM11152  
**Nucleotide Change:** c.700T>C  
**Amino Acid Change:** p.Y234H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6399F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10810  
**Nucleotide Change:** c.725G>T  
**Amino Acid Change:** p.C242F  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6436F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM45666

**Nucleotide Change:** c.810\_811insN

**Amino Acid Change:** p.E271fs\*35

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6514F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM45975

**Nucleotide Change:** c.703delA

**Amino Acid Change:** p.N235fs\*12

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6515F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM44543

**Nucleotide Change:** c.464\_465insN

**Amino Acid Change:** p.R156fs\*25

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6516F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM43546

**Nucleotide Change:** c.516\_517insN

**Amino Acid Change:** p.V173fs\*8

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6517F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM44400

**Nucleotide Change:** c.702\_703insN

**Amino Acid Change:** p.N235fs\*5

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6518F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM1318430

**Nucleotide Change:** c.516delT

**Amino Acid Change:** p.V173fs\*1

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6519F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM44361

**Nucleotide Change:** c.533\_534insN

**Amino Acid Change:** p.H178fs\*3

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6520F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM43570

**Nucleotide Change:** c.529\_546del18

**Amino Acid Change:** p.P177\_C182delPHHERC

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6521F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM1324785

**Nucleotide Change:** c.530\_535delCCCACC

**Amino Acid Change:** p.P177\_H178delPH

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6522F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM46406

**Nucleotide Change:** c.643delA

**Amino Acid Change:** p.S215fs\*32

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6523F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM44887

**Nucleotide Change:** c.644delG

**Amino Acid Change:** p.S215fs\*32

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6525F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM69179

**Nucleotide Change:** c.560-1\_583del25

**Amino Acid Change:** p.?

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6526F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM5982134

**Nucleotide Change:** c.613\_614insT

**Amino Acid Change:** p.Y205fs\*4

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6527F

**Price:** \$400.00

**Gene Name:**TP53

**Mutation Id:** COSM1716966

**Nucleotide Change:** c.613\_614insC

**Amino Acid Change:** p.Y205fs\*4

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6529F

**Price:** \$400.00

**Gene Name:**CTNNB1

**Mutation Id:** COSM27310

**Nucleotide Change:** c.139A>T

**Amino Acid Change:** p.S47C

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6530F

**Price:** \$400.00

**Gene Name:**CTNNB1

**Mutation Id:** COSM1423011

**Nucleotide Change:** c.132T>C

**Amino Acid Change:** p.P44P

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6532F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM45847**Nucleotide Change:** c.574\_575delCA**Amino Acid Change:** p.Q192fs\*16**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6533F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM4735408**Nucleotide Change:** c.571\_581del11**Amino Acid Change:** p.P191fs\*14**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6194F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM11087**Nucleotide Change:** c.472C>G**Amino Acid Change:** p.R158G**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6193F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM43848**Nucleotide Change:** c.472C>T**Amino Acid Change:** p.R158C**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Slide Reference Standard*****Catalog:** ASE-6086F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM10646**Nucleotide Change:** c.725G>A**Amino Acid Change:** p.C242Y**Frequency:** Homozygous



**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6087F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM6932**Nucleotide Change:** c.733G>A**Amino Acid Change:** p.G245S**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6090F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM11081**Nucleotide Change:** c.733G>T**Amino Acid Change:** p.G245C**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6088F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM43606**Nucleotide Change:** c.734G>A**Amino Acid Change:** p.G245D**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6089F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM11196**Nucleotide Change:** c.734G>T**Amino Acid Change:** p.G245V**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard****Catalog:** ASE-6092F**Price:** \$400.00**Gene Name:**TP53**Mutation Id:** COSM10656**Nucleotide Change:** c.742C>T**Amino Acid Change:** p.R248W**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Slide Reference Standard**

**Catalog:** ASE-6093F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM6549  
**Nucleotide Change:** c.743G>T  
**Amino Acid Change:** p.R248L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6099F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10659  
**Nucleotide Change:** c.817C>T  
**Amino Acid Change:** p.R273C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6098F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10660  
**Nucleotide Change:** c.818G>A  
**Amino Acid Change:** p.R273H  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6101F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM11232  
**Nucleotide Change:** c.842A>G  
**Amino Acid Change:** p.D281G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6103F  
**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10992  
**Nucleotide Change:** c.844C>G  
**Amino Acid Change:** p.R282G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Slide Reference Standard***

**Catalog:** ASE-6104F

**Price:** \$400.00  
**Gene Name:**TP53  
**Mutation Id:** COSM44338  
**Nucleotide Change:** c.845G>A  
**Amino Acid Change:** p.R282Q  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6262S  
**Price:** \$100.00  
**Gene Name:**ABL1  
**Mutation Id:** COSM12578  
**Nucleotide Change:** c.1052T>C  
**Amino Acid Change:** p.M351T  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6061S  
**Price:** \$100.00  
**Gene Name:**AKT1  
**Mutation Id:** COSM33765  
**Nucleotide Change:** c.49G>A  
**Amino Acid Change:** p.E17K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6308S  
**Price:** \$100.00  
**Gene Name:**ALK  
**Mutation Id:** COSM28059  
**Nucleotide Change:** c.3521T>G  
**Amino Acid Change:** p.F1174C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6309S  
**Price:** \$100.00  
**Gene Name:**ALK  
**Mutation Id:** COSM28056  
**Nucleotide Change:** c.3824G>A  
**Amino Acid Change:** p.R1275Q  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6310S  
**Price:** \$100.00

**Gene Name:**ALK  
**Mutation Id:** COSM28060  
**Nucleotide Change:** c.3824G>T  
**Amino Acid Change:** p.R1275L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6311S  
**Price:** \$100.00  
**Gene Name:**ALK  
**Mutation Id:** COSM99137  
**Nucleotide Change:** c.3586C>A  
**Amino Acid Change:** p.L1196M  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6148S  
**Price:** \$100.00  
**Gene Name:**APC  
**Mutation Id:** COSM13864  
**Nucleotide Change:** c.4393\_4394delAG  
**Amino Acid Change:** p.S1465fs\*3  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6144S  
**Price:** \$100.00  
**Gene Name:**APC  
**Mutation Id:** COSM13127  
**Nucleotide Change:** c.4348C>T  
**Amino Acid Change:** p.R1450\*  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6412S  
**Price:** \$100.00  
**Gene Name:**APC  
**Mutation Id:** COSM41607  
**Nucleotide Change:** c.4090\_4091insA  
**Amino Acid Change:** p.S1364fs\*11  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6435S  
**Price:** \$100.00  
**Gene Name:**APC

**Mutation Id:** COSM18761  
**Nucleotide Change:** c.4090delA  
**Amino Acid Change:** p.S1364fs\*51  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6150S

**Price:** \$100.00

**Gene Name:**APC

**Mutation Id:** COSM13134

**Nucleotide Change:** c.637C>T

**Amino Acid Change:** p.R213\*

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5047

**Price:** \$100.00

**Gene Name:**BRAF

**Mutation Id:** COSM476

**Nucleotide Change:** 1799T>A

**Amino Acid Change:** V600E

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5044

**Price:** \$100.00

**Gene Name:**BRAF

**Mutation Id:** COSM473

**Nucleotide Change:** 1798\_1799GT>AA

**Amino Acid Change:** V600K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5045

**Price:** \$100.00

**Gene Name:**BRAF

**Mutation Id:** COSM474

**Nucleotide Change:** 1798\_1799GT>AG

**Amino Acid Change:** V600R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5049

**Price:** \$100.00

**Gene Name:**BRAF

**Mutation Id:** COSM1130

**Nucleotide Change:** 1798G>A

**Amino Acid Change:** V600M

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5046

**Price:** \$100.00

**Gene Name:** BRAF

**Mutation Id:** COSM475

**Nucleotide Change:** 1799\_1800TG>AA

**Amino Acid Change:** V600E

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5048

**Price:** \$100.00

**Gene Name:** BRAF

**Mutation Id:** COSM477

**Nucleotide Change:** 1799\_1800TG>AT

**Amino Acid Change:** V600D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5050

**Price:** \$100.00

**Gene Name:** BRAF

**Mutation Id:** COSM6137

**Nucleotide Change:** 1799T>G

**Amino Acid Change:** V600G

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6108S

**Price:** \$100.00

**Gene Name:** BRCA1

**Mutation Id:** COSM35891

**Nucleotide Change:** c.5263\_5264insC(5382insC)

**Amino Acid Change:** p.Q1756fs\*74

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6107S

**Price:** \$100.00

**Gene Name:** BRCA1

**Mutation Id:** COSM3190163

**Nucleotide Change:** c.68\_69delAG

**Amino Acid Change:** p.E23fs\*17

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6106S

**Price:** \$100.00

**Gene Name:**BRCA1

**Mutation Id:** COSM78883

**Nucleotide Change:** c.5503C>T

**Amino Acid Change:** p.R1835\*

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6113S

**Price:** \$100.00

**Gene Name:**BRCA1

**Mutation Id:** rs80357997

**Nucleotide Change:** c.5137delG

**Amino Acid Change:** p.Val1713Terfs

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6114S

**Price:** \$100.00

**Gene Name:**BRCA1

**Mutation Id:** ClinVar55412

**Nucleotide Change:** c.5138T>C

**Amino Acid Change:** p.V1713A

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6115S

**Price:** \$100.00

**Gene Name:**BRCA1

**Mutation Id:** COSM148277

**Nucleotide Change:** c.3548A>G

**Amino Acid Change:** p.K1183R

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6116S

**Price:** \$100.00

**Gene Name:**BRCA1

**Mutation Id:** COSM148278

**Nucleotide Change:** c.2612C>T

**Amino Acid Change:** p.P871L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6112S

**Price:** \$100.00

**Gene Name:**BRCA1

**Mutation Id:** OMIM: 113705.0025

**Nucleotide Change:** c.3481\_3491del11

**Amino Acid Change:** p.E1161Fs

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6119S

**Price:** \$100.00

**Gene Name:**BRCA2

**Mutation Id:** COSM1738242

**Nucleotide Change:** c.7934delG

**Amino Acid Change:** p.R2645fs\*3

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6337S

**Price:** \$100.00

**Gene Name:**BRCA2

**Mutation Id:** COSM6048457

**Nucleotide Change:** c.5067delA

**Amino Acid Change:** p.K1691fs\*15

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6513S

**Price:** \$100.00

**Gene Name:**BRCA2

**Mutation Id:** COSM5078975

**Nucleotide Change:** c.5066\_5067insA

**Amino Acid Change:** p.W1692fs\*3

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6294S

**Price:** \$100.00

**Gene Name:**CDH1

**Mutation Id:** COSM972800

**Nucleotide Change:** c.2195G>A

**Amino Acid Change:** p.R732Q

**Frequency:** Homozygous



***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6295S**Price:** \$100.00**Gene Name:**CDX2**Mutation Id:** COSM1366182**Nucleotide Change:** c.916delG**Amino Acid Change:** p.V306fs\*2**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6137S**Price:** \$100.00**Gene Name:**CTNNB1**Mutation Id:** COSM5663**Nucleotide Change:** c.133T>C**Amino Acid Change:** p.S45P**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6138S**Price:** \$100.00**Gene Name:**CTNNB1**Mutation Id:** COSM5662**Nucleotide Change:** c.110C>T**Amino Acid Change:** p.S37F**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6142S**Price:** \$100.00**Gene Name:**CTNNB1**Mutation Id:** COSM5676**Nucleotide Change:** c.122C>T**Amino Acid Change:** p.T41I**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6524S**Price:** \$100.00**Gene Name:**CTNNB1**Mutation Id:** COSM6132**Nucleotide Change:** c.136\_141delCTGAGT**Amino Acid Change:** p.L46\_S47del**Frequency:** Homozygous

**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6528S**Price:** \$100.00**Gene Name:**CTNNB1**Mutation Id:** COSM5990184**Nucleotide Change:** c.116\_138del23**Amino Acid Change:** p.A39fs\*3**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6143S**Price:** \$100.00**Gene Name:**CTNNB1**Mutation Id:** COSM6128**Nucleotide Change:** c.133\_135delTCT**Amino Acid Change:** p.S45del**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6052S**Price:** \$100.00**Gene Name:**PIK3CA**Mutation Id:** COSM776**Nucleotide Change:** c.3140A>T**Amino Acid Change:** p.H1047L**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6140S**Price:** \$100.00**Gene Name:**CTNNB1**Mutation Id:** COSM5673**Nucleotide Change:** c.98C>A**Amino Acid Change:** p.S33Y**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6139S**Price:** \$100.00**Gene Name:**CTNNB1**Mutation Id:** COSM5677**Nucleotide Change:** c.98C>G**Amino Acid Change:** p.S33C**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard**

**Catalog:** ASO-5008  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12384  
**Nucleotide Change:** 2237\_2255>T  
**Amino Acid Change:** E746\_S752>V  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5003  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6255  
**Nucleotide Change:** 2239\_2256del18  
**Amino Acid Change:** L747\_S752del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5029  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6240  
**Nucleotide Change:** c.2369C>T  
**Amino Acid Change:** p.T790M  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6183S  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM13193  
**Nucleotide Change:** c.2477A>G  
**Amino Acid Change:** p.N826S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6343S  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12988  
**Nucleotide Change:** c.2125G>A  
**Amino Acid Change:** p.E709K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6346S

**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM236670  
**Nucleotide Change:** c.1476C>A  
**Amino Acid Change:** p.S492R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5000  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6252  
**Nucleotide Change:** 2155G>A  
**Amino Acid Change:** G719S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5001  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6253  
**Nucleotide Change:** 2155G>T  
**Amino Acid Change:** G719C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5002  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6239  
**Nucleotide Change:** 2156G>C  
**Amino Acid Change:** G719A  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5015  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM26038  
**Nucleotide Change:** 2233\_2247del15  
**Amino Acid Change:** K745\_E749delKELRE  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5024  
**Price:** \$100.00

**Gene Name:**EGFR  
**Mutation Id:** COSM13550  
**Nucleotide Change:** 2235\_2248>AATTC  
**Amino Acid Change:** E746\_A750>IP  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5016  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6223  
**Nucleotide Change:** 2235\_2249del15  
**Amino Acid Change:** E746\_A750delELREA  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5014  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM13551  
**Nucleotide Change:** 2235\_2252>AAT  
**Amino Acid Change:** E746\_T751>I  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5017  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM6225  
**Nucleotide Change:** 2236\_2250del15  
**Amino Acid Change:** E746\_A750delELREA  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5009  
**Price:** \$100.00  
**Gene Name:**EGFR  
**Mutation Id:** COSM12728  
**Nucleotide Change:** 2236\_2253del18  
**Amino Acid Change:** E746\_T751del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5010  
**Price:** \$100.00  
**Gene Name:**EGFR

**Mutation Id:** COSM12678  
**Nucleotide Change:** 2237\_2251del15  
**Amino Acid Change:** E746\_T751>A  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5013

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12386

**Nucleotide Change:** 2237\_2252>T

**Amino Acid Change:** E746\_T751>V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5007

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12367

**Nucleotide Change:** 2237\_2254del18

**Amino Acid Change:** E746\_S752>A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5022

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12422

**Nucleotide Change:** 2238\_2248>GC

**Amino Acid Change:** L747\_A750>P

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5020

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12419

**Nucleotide Change:** 2238\_2252>GCA

**Amino Acid Change:** L747\_T751>Q

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5005

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM6220

**Nucleotide Change:** 2238\_2255del18

**Amino Acid Change:** E746\_S752>D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5023

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM6218

**Nucleotide Change:** 2239\_2247del9

**Amino Acid Change:** L747\_E749delLRE

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5021

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12382

**Nucleotide Change:** 2239\_2248TTAAGAGAAG>C

**Amino Acid Change:** L747\_A750>P

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5018

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12383

**Nucleotide Change:** 2239\_2251>C

**Amino Acid Change:** L747\_T751>P

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5006

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12387

**Nucleotide Change:** 2239\_2258>CA

**Amino Acid Change:** L747\_P753>Q

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5019

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM6210

**Nucleotide Change:** 2240\_2251del12

**Amino Acid Change:** L747\_T751>S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5012

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12369 (COSM6254)

**Nucleotide Change:** 2240\_2254del15

**Amino Acid Change:** L747\_T751del

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5004

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12370

**Nucleotide Change:** 2240\_2257del18

**Amino Acid Change:** L747\_P753>S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5025

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM6241

**Nucleotide Change:** 2303G>T

**Amino Acid Change:** S768I

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5026

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12376

**Nucleotide Change:** 2307\_2308insGCCAGCGTG

**Amino Acid Change:** V769\_D770insASV

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5027

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12378

**Nucleotide Change:** 2310\_2311insGGT

**Amino Acid Change:** D770\_N771insG



**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5028

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM12377

**Nucleotide Change:** 2319\_2320insCAC

**Amino Acid Change:** H773\_V774insH

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5030

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM6224

**Nucleotide Change:** 2573T>G

**Amino Acid Change:** L858R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5031

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM6213

**Nucleotide Change:** 2582T>A

**Amino Acid Change:** L861Q

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6182S

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM18422

**Nucleotide Change:** c.2360A>G

**Amino Acid Change:** p.Q787R

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6177S

**Price:** \$100.00

**Gene Name:**EGFR

**Mutation Id:** COSM6493937/6240

**Nucleotide Change:** c.2389T>A/c.2369C>T

**Amino Acid Change:** p.C797S/T790M

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6185S**Price:** \$100.00**Gene Name:**EGFR**Mutation Id:** COSM85894**Nucleotide Change:** c.2527G>A**Amino Acid Change:** p.V843I**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6176S**Price:** \$100.00**Gene Name:**EGFR**Mutation Id:** COSM5945664/6240**Nucleotide Change:** c.2390G>C/c.2369C>T**Amino Acid Change:** p.C797S/T790M**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6175S**Price:** \$100.00**Gene Name:**ERBB2**Mutation Id:** COSM12553**Nucleotide Change:** c.2326\_2327insTGT**Amino Acid Change:** p.G776>VC**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6171S**Price:** \$100.00**Gene Name:**ESR1**Mutation Id:** COSM1074635**Nucleotide Change:** c.1609T>A**Amino Acid Change:** p.Y537N**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6170S**Price:** \$100.00**Gene Name:**ESR1**Mutation Id:** COSM1074639**Nucleotide Change:** c.1610A>C**Amino Acid Change:** p.Y537S**Frequency:** Homozygous

**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6172S**Price:** \$100.00**Gene Name:**ESR1**Mutation Id:** COSM1074637**Nucleotide Change:** c.1610A>G**Amino Acid Change:** p.Y537C**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6169S**Price:** \$100.00**Gene Name:**ESR1**Mutation Id:** COSM94250**Nucleotide Change:** c.1613A>G**Amino Acid Change:** p.D538G**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6354S**Price:** \$100.00**Gene Name:**FBXW7**Mutation Id:** COSM22971**Nucleotide Change:** c.832C>T**Amino Acid Change:** p.R278\***Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6355S**Price:** \$100.00**Gene Name:**FBXW7**Mutation Id:** COSM22964**Nucleotide Change:** c.1099C>T**Amino Acid Change:** p.R367\***Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6247S**Price:** \$100.00**Gene Name:**FGFR2**Mutation Id:** COSM36903**Nucleotide Change:** c.755C>G**Amino Acid Change:** p.S252W**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard**

**Catalog:** ASE-6250S  
**Price:** \$100.00  
**Gene Name:**FGFR2  
**Mutation Id:** COSM36904  
**Nucleotide Change:** c.1124A>G  
**Amino Acid Change:** p.Y375C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6251S  
**Price:** \$100.00  
**Gene Name:**FGFR2  
**Mutation Id:** COSM36906  
**Nucleotide Change:** c.1144T>C  
**Amino Acid Change:** p.C382R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6208S  
**Price:** \$100.00  
**Gene Name:**FGFR3  
**Mutation Id:** COSM714  
**Nucleotide Change:** c.742C>T  
**Amino Acid Change:** p.R248C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6209S  
**Price:** \$100.00  
**Gene Name:**FGFR3  
**Mutation Id:** COSM718  
**Nucleotide Change:** c.1118A>G  
**Amino Acid Change:** p.Y373C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6211S  
**Price:** \$100.00  
**Gene Name:**FGFR3  
**Mutation Id:** COSM17461  
**Nucleotide Change:** c.1111A>T  
**Amino Acid Change:** p.S371C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6212S

**Price:** \$100.00  
**Gene Name:**FGFR3  
**Mutation Id:** COSM24842  
**Nucleotide Change:** c.1138G>A  
**Amino Acid Change:** p.G380R  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6154S  
**Price:** \$100.00  
**Gene Name:**FLT3  
**Mutation Id:** COSM785  
**Nucleotide Change:** c.2503G>C  
**Amino Acid Change:** p.D835H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6157S  
**Price:** \$100.00  
**Gene Name:**FLT3  
**Mutation Id:** COSM19836  
**Nucleotide Change:** c.2508\_2510delCAT  
**Amino Acid Change:** p.I836del  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6279S  
**Price:** \$100.00  
**Gene Name:**GNAQ  
**Mutation Id:** COSM28758  
**Nucleotide Change:** c.626A>C  
**Amino Acid Change:** p.Q209P  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6281S  
**Price:** \$100.00  
**Gene Name:**GNAQ  
**Mutation Id:** COSM28760  
**Nucleotide Change:** c.626A>G  
**Amino Acid Change:** p.Q209R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6278S  
**Price:** \$100.00

**Gene Name:**GNAQ  
**Mutation Id:** COSM28757  
**Nucleotide Change:** c.626A>T  
**Amino Acid Change:** p.Q209L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6285S  
**Price:** \$100.00  
**Gene Name:**GNAS  
**Mutation Id:** COSM27899  
**Nucleotide Change:** c.601C>A  
**Amino Acid Change:** p.R201S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6286S  
**Price:** \$100.00  
**Gene Name:**GNAS  
**Mutation Id:** COSM27895  
**Nucleotide Change:** c.602G>A  
**Amino Acid Change:** p.R201H  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6468S  
**Price:** \$100.00  
**Gene Name:**GNAS  
**Mutation Id:** rs1060500285  
**Nucleotide Change:** c.686A>G  
**Amino Acid Change:** p.D229G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard HCT116 WT***

**Catalog:** ASO-5052  
**Price:** \$100.00

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6076S  
**Price:** \$100.00  
**Gene Name:**HRAS  
**Mutation Id:** COSM483  
**Nucleotide Change:** c.35G>T  
**Amino Acid Change:** p.G12V  
**Frequency:** Homozygous

**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6077S**Price:** \$100.00**Gene Name:**HRAS**Mutation Id:** COSM484**Nucleotide Change:** c.35G>A**Amino Acid Change:** p.G12D**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6361S**Price:** \$100.00**Gene Name:**HRAS**Mutation Id:** COSM502**Nucleotide Change:** c.183G>T**Amino Acid Change:** p.Q61H**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6079S**Price:** \$100.00**Gene Name:**HRAS**Mutation Id:** COSM496**Nucleotide Change:** c.181C>A**Amino Acid Change:** p.Q61K**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6078S**Price:** \$100.00**Gene Name:**HRAS**Mutation Id:** COSM486**Nucleotide Change:** c.37G>C**Amino Acid Change:** p.G13R**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6080S**Price:** \$100.00**Gene Name:**HRAS**Mutation Id:** COSM499**Nucleotide Change:** c.182A>G**Amino Acid Change:** p.Q61R**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard**

**Catalog:** ASE-6226S  
**Price:** \$100.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM41877  
**Nucleotide Change:** c.418C>T  
**Amino Acid Change:** p.R140W  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6225S  
**Price:** \$100.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM41590  
**Nucleotide Change:** c.419G>A  
**Amino Acid Change:** p.R140Q  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6227S  
**Price:** \$100.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM41875  
**Nucleotide Change:** c.419G>T  
**Amino Acid Change:** p.R140L  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6232S  
**Price:** \$100.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM33731  
**Nucleotide Change:** c.514A>G  
**Amino Acid Change:** p.R172G  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6231S  
**Price:** \$100.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM34039  
**Nucleotide Change:** c.514A>T  
**Amino Acid Change:** p.R172W  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6228S



**Price:** \$100.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM33733  
**Nucleotide Change:** c.515G>A  
**Amino Acid Change:** p.R172K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6229S  
**Price:** \$100.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM33732  
**Nucleotide Change:** c.515G>T  
**Amino Acid Change:** p.R172M  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6230S  
**Price:** \$100.00  
**Gene Name:**IDH2  
**Mutation Id:** COSM34090  
**Nucleotide Change:** c.516G>T  
**Amino Acid Change:** p.R172S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6120S  
**Price:** \$100.00  
**Gene Name:**JAK2  
**Mutation Id:** COSM12600  
**Nucleotide Change:** c.1849G>T  
**Amino Acid Change:** p.V617F  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6121S  
**Price:** \$100.00  
**Gene Name:**JAK2  
**Mutation Id:** COSM4391514  
**Nucleotide Change:** c.1843G>T  
**Amino Acid Change:** p.V615L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6122S  
**Price:** \$100.00

**Gene Name:**JAK2  
**Mutation Id:** COSM29117  
**Nucleotide Change:** c.1849G>A  
**Amino Acid Change:** p.V617I  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6160S  
**Price:** \$100.00  
**Gene Name:**KIT  
**Mutation Id:** COSM1226  
**Nucleotide Change:** c.1670\_1675delGGAAGG  
**Amino Acid Change:** p.W557\_V559>F  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6162S  
**Price:** \$100.00  
**Gene Name:**KIT  
**Mutation Id:** COSM1314  
**Nucleotide Change:** c.2447A>T  
**Amino Acid Change:** p.D816V  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6163S  
**Price:** \$100.00  
**Gene Name:**KIT  
**Mutation Id:** COSM1310  
**Nucleotide Change:** c.2446G>T  
**Amino Acid Change:** p.D816Y  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6164S  
**Price:** \$100.00  
**Gene Name:**KIT  
**Mutation Id:** COSM1311  
**Nucleotide Change:** c.2446G>C  
**Amino Acid Change:** p.D816H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6166S  
**Price:** \$100.00  
**Gene Name:**KIT

**Mutation Id:** COSM1255  
**Nucleotide Change:** c.1676T>C  
**Amino Acid Change:** p.V559A  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6167S

**Price:** \$100.00

**Gene Name:**KIT

**Mutation Id:** COSM1257

**Nucleotide Change:** c.1679T>A

**Amino Acid Change:** p.V560D

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6159S

**Price:** \$100.00

**Gene Name:**KIT

**Mutation Id:** COSM1221

**Nucleotide Change:** c.1669T>G

**Amino Acid Change:** p.W557G

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6165S

**Price:** \$100.00

**Gene Name:**KIT

**Mutation Id:** COSM1252

**Nucleotide Change:** c.1676T>A

**Amino Acid Change:** p.V559D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6410S

**Price:** \$100.00

**Gene Name:**KIT

**Mutation Id:** COSM21979

**Nucleotide Change:** c.2446\_2447GA>AT

**Amino Acid Change:** p.D816I

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6411S

**Price:** \$100.00

**Gene Name:**KIT

**Mutation Id:** COSM1254

**Nucleotide Change:** c.1676\_1684del9

**Amino Acid Change:** p.V559\_E561del

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6423S

**Price:** \$100.00

**Gene Name:**KIT

**Mutation Id:** COSM1256

**Nucleotide Change:** c.1678\_1680delGTT

**Amino Acid Change:** p.V560del

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6531S

**Price:** \$100.00

**Gene Name:**KIT

**Mutation Id:** COSM1247

**Nucleotide Change:** c.1675\_1677delGTT

**Amino Acid Change:** p.V559del

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5038

**Price:** \$100.00

**Gene Name:**KRAS

**Mutation Id:** COSM527

**Nucleotide Change:** 37G>T

**Amino Acid Change:** G13C

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6062S

**Price:** \$100.00

**Gene Name:**KRAS

**Mutation Id:** COSM554

**Nucleotide Change:** c.183A>C

**Amino Acid Change:** p.Q61H

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5033

**Price:** \$100.00

**Gene Name:**KRAS

**Mutation Id:** COSM517

**Nucleotide Change:** 34G>A

**Amino Acid Change:** G12S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5034

**Price:** \$100.00

**Gene Name:** KRAS

**Mutation Id:** COSM518

**Nucleotide Change:** 34G>C

**Amino Acid Change:** G12R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5032

**Price:** \$100.00

**Gene Name:** KRAS

**Mutation Id:** COSM516

**Nucleotide Change:** 34G>T

**Amino Acid Change:** G12C

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5036

**Price:** \$100.00

**Gene Name:** KRAS

**Mutation Id:** COSM521

**Nucleotide Change:** 35G>A

**Amino Acid Change:** G12D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5037

**Price:** \$100.00

**Gene Name:** KRAS

**Mutation Id:** COSM522

**Nucleotide Change:** 35G>C

**Amino Acid Change:** G12A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5035

**Price:** \$100.00

**Gene Name:** KRAS

**Mutation Id:** COSM520

**Nucleotide Change:** 35G>T

**Amino Acid Change:** G12V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5039

**Price:** \$100.00

**Gene Name:** KRAS

**Mutation Id:** COSM528

**Nucleotide Change:** 37G>A

**Amino Acid Change:** G13S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5040

**Price:** \$100.00

**Gene Name:** KRAS

**Mutation Id:** COSM529

**Nucleotide Change:** 37G>C

**Amino Acid Change:** G13R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5041

**Price:** \$100.00

**Gene Name:** KRAS

**Mutation Id:** COSM532

**Nucleotide Change:** 38G>A

**Amino Acid Change:** G13D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5042

**Price:** \$100.00

**Gene Name:** KRAS

**Mutation Id:** COSM533

**Nucleotide Change:** 38G>C

**Amino Acid Change:** G13A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASO-5043

**Price:** \$100.00

**Gene Name:** KRAS

**Mutation Id:** COSM534

**Nucleotide Change:** 38G>T

**Amino Acid Change:** G13V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6201S**Price:** \$100.00**Gene Name:**MAP2K1**Mutation Id:** COSM235614**Nucleotide Change:** c.370C>T**Amino Acid Change:** p.P124S**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6204S**Price:** \$100.00**Gene Name:**MAP2K1**Mutation Id:** COSM232755**Nucleotide Change:** c.607G>A**Amino Acid Change:** p.E203K**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6202S**Price:** \$100.00**Gene Name:**MAP2K1**Mutation Id:** COSM1315861**Nucleotide Change:** c.371C>T**Amino Acid Change:** p.P124L**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6205S**Price:** \$100.00**Gene Name:**MAP2K1**Mutation Id:** COSM1235478**Nucleotide Change:** c.171G>T**Amino Acid Change:** p.K57N**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6299S**Price:** \$100.00**Gene Name:**MET**Mutation Id:** COSM707**Nucleotide Change:** c.3029C>T**Amino Acid Change:** p.T1010I**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6300S**Price:** \$100.00**Gene Name:**MET**Mutation Id:** COSM699**Nucleotide Change:** c.3743A>G**Amino Acid Change:** p.Y1248C**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6303S**Price:** \$100.00**Gene Name:**MET**Mutation Id:** COSM706**Nucleotide Change:** c.504G>T**Amino Acid Change:** p.E168D**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6296S**Price:** \$100.00**Gene Name:**MLH1**Mutation Id:** COSM2985326**Nucleotide Change:** c.967C>A**Amino Acid Change:** p.L323M**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6297S**Price:** \$100.00**Gene Name:**MLH1**Mutation Id:** COSM26085**Nucleotide Change:** c.1151T>A**Amino Acid Change:** p.V384D**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6271S**Price:** \$100.00**Gene Name:**NOTCH1**Mutation Id:** COSM12772**Nucleotide Change:** c.4721T>C**Amino Acid Change:** p.L1574P**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard***



**Catalog:** ASE-6272S  
**Price:** \$100.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM13047  
**Nucleotide Change:** c.4732\_4734delGTG  
**Amino Acid Change:** p.V1578delV  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6273S  
**Price:** \$100.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM13042  
**Nucleotide Change:** c.4778T>C  
**Amino Acid Change:** p.L1593P  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6275S  
**Price:** \$100.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM12771  
**Nucleotide Change:** c.4799T>C  
**Amino Acid Change:** p.L1600P  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6277S  
**Price:** \$100.00  
**Gene Name:**NOTCH1  
**Mutation Id:** COSM33747  
**Nucleotide Change:** c.5094C>T  
**Amino Acid Change:** p.D1698D  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6068S  
**Price:** \$100.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM573  
**Nucleotide Change:** c.38G>A  
**Amino Acid Change:** p.G13D  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6366S

**Price:** \$100.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM585  
**Nucleotide Change:** c.183A>T  
**Amino Acid Change:** p.Q61H  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6368S  
**Price:** \$100.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM566  
**Nucleotide Change:** c.35G>T  
**Amino Acid Change:** p.G12V  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6072S  
**Price:** \$100.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM580  
**Nucleotide Change:** c.181C>A  
**Amino Acid Change:** p.Q61K  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6071S  
**Price:** \$100.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM584  
**Nucleotide Change:** c.182A>G  
**Amino Acid Change:** p.Q61R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6073S  
**Price:** \$100.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM583  
**Nucleotide Change:** c.182A>T  
**Amino Acid Change:** p.Q61L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6200S  
**Price:** \$100.00

**Gene Name:**NRAS  
**Mutation Id:** COSM5044298  
**Nucleotide Change:** c.183\_183delA  
**Amino Acid Change:** p.E62fs\*6  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6066S  
**Price:** \$100.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM563  
**Nucleotide Change:** c.34G>A  
**Amino Acid Change:** p.G12S  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6067S  
**Price:** \$100.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM562  
**Nucleotide Change:** c.34G>T  
**Amino Acid Change:** p.G12C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6065S  
**Price:** \$100.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM564  
**Nucleotide Change:** c.35G>A  
**Amino Acid Change:** p.G12D  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6069S  
**Price:** \$100.00  
**Gene Name:**NRAS  
**Mutation Id:** COSM569  
**Nucleotide Change:** c.37G>C  
**Amino Acid Change:** p.G13R  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6254S  
**Price:** \$100.00  
**Gene Name:**PDGFRA

**Mutation Id:** COSM22413  
**Nucleotide Change:** c.2472C>T  
**Amino Acid Change:** p.V824V  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6255S  
**Price:** \$100.00  
**Gene Name:**PDGFRA  
**Mutation Id:** COSM736  
**Nucleotide Change:** c.2525A>T  
**Amino Acid Change:** p.D842V  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6256S  
**Price:** \$100.00  
**Gene Name:**PDGFRA  
**Mutation Id:** COSM737  
**Nucleotide Change:** c.2524\_2535del12  
**Amino Acid Change:** p.I843\_D846delIMHD  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6257S  
**Price:** \$100.00  
**Gene Name:**PDGFRA  
**Mutation Id:** COSM12400  
**Nucleotide Change:** c.2527\_2538del12  
**Amino Acid Change:** p.I843\_D846delIMHD  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6058S  
**Price:** \$100.00  
**Gene Name:**PIK3CA  
**Mutation Id:** COSM746  
**Nucleotide Change:** c.263G>A  
**Amino Acid Change:** p.R88Q  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6056S  
**Price:** \$100.00  
**Gene Name:**PIK3CA  
**Mutation Id:** COSM12458

**Nucleotide Change:** c.1634A>C

**Amino Acid Change:** p.E545A

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6060S

**Price:** \$100.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM757

**Nucleotide Change:** c.1258T>C

**Amino Acid Change:** p.C420R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6053S

**Price:** \$100.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM760

**Nucleotide Change:** c.1624G>A

**Amino Acid Change:** p.E542K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6054S

**Price:** \$100.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM763

**Nucleotide Change:** c.1633G>A

**Amino Acid Change:** p.E545K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6055S

**Price:** \$100.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM764

**Nucleotide Change:** c.1634A>G

**Amino Acid Change:** p.E545G

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6057S

**Price:** \$100.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM766

**Nucleotide Change:** c.1636C>A

**Amino Acid Change:** p.Q546K

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6051S

**Price:** \$100.00

**Gene Name:**PIK3CA

**Mutation Id:** COSM775

**Nucleotide Change:** c.3140A>G

**Amino Acid Change:** p.H1047R

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6070S

**Price:** \$100.00

**Gene Name:**NRAS

**Mutation Id:** COSM574

**Nucleotide Change:** c.38G>T

**Amino Acid Change:** p.G13V

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6243S

**Price:** \$100.00

**Gene Name:**PIK3R1

**Mutation Id:** COSM1069619

**Nucleotide Change:** c.1718T>C

**Amino Acid Change:** p.L573P

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6244S

**Price:** \$100.00

**Gene Name:**PIK3R1

**Mutation Id:** COSM85927

**Nucleotide Change:** c.1721G>T

**Amino Acid Change:** p.R574I

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6245S

**Price:** \$100.00

**Gene Name:**PIK3R1

**Mutation Id:** COSM1069623

**Nucleotide Change:** c.1721\_1722insA

**Amino Acid Change:** p.T576fs\*26

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6246S

**Price:** \$100.00

**Gene Name:**PIK3R1

**Mutation Id:** COSM35737

**Nucleotide Change:** c.1727\_1729delCGA

**Amino Acid Change:** p.T576del

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6425S

**Price:** \$100.00

**Gene Name:**PIK3R1

**Mutation Id:** COSM85885

**Nucleotide Change:** c.1709\_1735del27

**Amino Acid Change:** p.L570\_D578del

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6129S

**Price:** \$100.00

**Gene Name:**PTEN

**Mutation Id:** COSM5152

**Nucleotide Change:** c.388C>T

**Amino Acid Change:** p.R130\*

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6130S

**Price:** \$100.00

**Gene Name:**PTEN

**Mutation Id:** COSM5216

**Nucleotide Change:** c.389G>T

**Amino Acid Change:** p.R130L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6131S

**Price:** \$100.00

**Gene Name:**PTEN

**Mutation Id:** COSM5089

**Nucleotide Change:** c.517C>T

**Amino Acid Change:** p.R173C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6132S**Price:** \$100.00**Gene Name:**PTEN**Mutation Id:** COSM5039**Nucleotide Change:** c.518G>A**Amino Acid Change:** p.R173H**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6134S**Price:** \$100.00**Gene Name:**PTEN**Mutation Id:** COSM4391544**Nucleotide Change:** c.377C>G**Amino Acid Change:** p.A126G**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6127S**Price:** \$100.00**Gene Name:**PTEN**Mutation Id:** COSM5219**Nucleotide Change:** c.388C>G**Amino Acid Change:** p.R130G**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6128S**Price:** \$100.00**Gene Name:**PTEN**Mutation Id:** COSM5033**Nucleotide Change:** c.389G>A**Amino Acid Change:** p.R130Q**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6133S**Price:** \$100.00**Gene Name:**PTEN**Mutation Id:** COSM5154**Nucleotide Change:** c.697C>T**Amino Acid Change:** p.R233\***Frequency:** Heterozygous



**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6123S**Price:** \$100.00**Gene Name:**RB1**Mutation Id:** COSM892**Nucleotide Change:** c.1735C>T**Amino Acid Change:** p.R579\***Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6125S**Price:** \$100.00**Gene Name:**RB1**Mutation Id:** COSM878**Nucleotide Change:** c.751C>T**Amino Acid Change:** p.R251\***Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6315S**Price:** \$100.00**Gene Name:**RET**Mutation Id:** COSM968**Nucleotide Change:** c.1894\_1899delGAGCTG**Amino Acid Change:** p.E632\_L633del**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard RKO WT****Catalog:** ASO-5051**Price:** \$100.00**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6322S**Price:** \$100.00**Gene Name:**ROS1**Mutation Id:** COSM1697823**Nucleotide Change:** c.4924G>A**Amino Acid Change:** p.E1642K**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6319S**Price:** \$100.00**Gene Name:**SMAD4**Mutation Id:** COSM14049**Nucleotide Change:** c.1067C>T

**Amino Acid Change:** p.P356L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6320S

**Price:** \$100.00

**Gene Name:**SMAD4

**Mutation Id:** COSM1226726

**Nucleotide Change:** c.1066C>T

**Amino Acid Change:** p.P356S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6372S

**Price:** \$100.00

**Gene Name:**STK11

**Mutation Id:** COSM21360

**Nucleotide Change:** c.1062C>G

**Amino Acid Change:** p.F354L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6375S

**Price:** \$100.00

**Gene Name:**STK11

**Mutation Id:** COSM20943

**Nucleotide Change:** c.508C>T

**Amino Acid Change:** p.Q170\*

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6376S

**Price:** \$100.00

**Gene Name:**STK11

**Mutation Id:** COSM21354

**Nucleotide Change:** c.511G>A

**Amino Acid Change:** p.G171S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6091S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM10662

**Nucleotide Change:** c.743G>A

**Amino Acid Change:** p.R248Q

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6082S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM10648

**Nucleotide Change:** c.524G>A

**Amino Acid Change:** p.R175H

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6083S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM10870

**Nucleotide Change:** c.523C>G

**Amino Acid Change:** p.R175G

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6084S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM10718

**Nucleotide Change:** c.524G>T

**Amino Acid Change:** p.R175L

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6094S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM10817

**Nucleotide Change:** c.747G>T

**Amino Acid Change:** p.R249S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6095S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM43629

**Nucleotide Change:** c.745A>T

**Amino Acid Change:** p.R249W

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6096S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM43871**Nucleotide Change:** c.746G>T**Amino Acid Change:** p.R249M**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6097S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10668**Nucleotide Change:** c.745A>G**Amino Acid Change:** p.R249G**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6191S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10690**Nucleotide Change:** c.473G>A**Amino Acid Change:** p.R158H**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6192S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10714**Nucleotide Change:** c.473G>T**Amino Acid Change:** p.R158L**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6195S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10670**Nucleotide Change:** c.469G>T**Amino Acid Change:** p.V157F**Frequency:** Heterozygous

**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6196S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM43903**Nucleotide Change:** c.470T>G**Amino Acid Change:** p.V157G**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6198S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10889**Nucleotide Change:** c.536A>G**Amino Acid Change:** p.H179R**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6085S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10758**Nucleotide Change:** c.659A>G**Amino Acid Change:** p.Y220C**Frequency:** Homozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6105S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM13747**Nucleotide Change:** c.1146delA**Amino Acid Change:** p.K382fs\*>12**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6379S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10808**Nucleotide Change:** c.488A>G**Amino Acid Change:** p.Y163C**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard**

**Catalog:** ASE-6380S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM44623  
**Nucleotide Change:** c.487T>A  
**Amino Acid Change:** p.Y163N  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6381S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43846  
**Nucleotide Change:** c.487T>C  
**Amino Acid Change:** p.Y163H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6382S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43559  
**Nucleotide Change:** c.517G>T  
**Amino Acid Change:** p.V173L  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6383S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM11084  
**Nucleotide Change:** c.517G>A  
**Amino Acid Change:** p.V173M  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6387S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43947  
**Nucleotide Change:** c.614A>G  
**Amino Acid Change:** p.Y205C  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6388S

**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43844  
**Nucleotide Change:** c.613T>G  
**Amino Acid Change:** p.Y205D  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6389S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10654  
**Nucleotide Change:** c.637C>T  
**Amino Acid Change:** p.R213\*  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6392S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43687  
**Nucleotide Change:** c.641A>G  
**Amino Acid Change:** p.H214R  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6393S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM10725  
**Nucleotide Change:** c.701A>G  
**Amino Acid Change:** p.Y234C  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6394S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM11152  
**Nucleotide Change:** c.700T>C  
**Amino Acid Change:** p.Y234H  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6399S  
**Price:** \$100.00

**Gene Name:**TP53  
**Mutation Id:** COSM10810  
**Nucleotide Change:** c.725G>T  
**Amino Acid Change:** p.C242F  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6436S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM45666  
**Nucleotide Change:** c.810\_811insN  
**Amino Acid Change:** p.E271fs\*35  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6514S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM45975  
**Nucleotide Change:** c.703delA  
**Amino Acid Change:** p.N235fs\*12  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6515S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM44543  
**Nucleotide Change:** c.464\_465insN  
**Amino Acid Change:** p.R156fs\*25  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6516S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM43546  
**Nucleotide Change:** c.516\_517insN  
**Amino Acid Change:** p.V173fs\*8  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6517S  
**Price:** \$100.00  
**Gene Name:**TP53



**Mutation Id:** COSM44400  
**Nucleotide Change:** c.702\_703insN  
**Amino Acid Change:** p.N235fs\*5  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6518S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM1318430

**Nucleotide Change:** c.516delT

**Amino Acid Change:** p.V173fs\*1

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6519S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM44361

**Nucleotide Change:** c.533\_534insN

**Amino Acid Change:** p.H178fs\*3

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6520S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM43570

**Nucleotide Change:** c.529\_546del18

**Amino Acid Change:** p.P177\_C182delPHHERC

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6521S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM1324785

**Nucleotide Change:** c.530\_535delCCCACC

**Amino Acid Change:** p.P177\_H178delPH

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6522S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM46406

**Nucleotide Change:** c.643delA  
**Amino Acid Change:** p.S215fs\*32  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6523S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM44887  
**Nucleotide Change:** c.644delG  
**Amino Acid Change:** p.S215fs\*32  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6525S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM69179  
**Nucleotide Change:** c.560-1\_583del25  
**Amino Acid Change:** p.?  
**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6526S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM5982134  
**Nucleotide Change:** c.613\_614insT  
**Amino Acid Change:** p.Y205fs\*4  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6527S  
**Price:** \$100.00  
**Gene Name:**TP53  
**Mutation Id:** COSM1716966  
**Nucleotide Change:** c.613\_614insC  
**Amino Acid Change:** p.Y205fs\*4  
**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6529S  
**Price:** \$100.00  
**Gene Name:**CTNNB1  
**Mutation Id:** COSM27310  
**Nucleotide Change:** c.139A>T

**Amino Acid Change:** p.S47C

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6530S

**Price:** \$100.00

**Gene Name:**CTNNB1

**Mutation Id:** COSM1423011

**Nucleotide Change:** c.132T>C

**Amino Acid Change:** p.P44P

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6532S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM45847

**Nucleotide Change:** c.574\_575delCA

**Amino Acid Change:** p.Q192fs\*16

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6533S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM4735408

**Nucleotide Change:** c.571\_581del11

**Amino Acid Change:** p.P191fs\*14

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6194S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM11087

**Nucleotide Change:** c.472C>G

**Amino Acid Change:** p.R158G

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6193S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM43848

**Nucleotide Change:** c.472C>T

**Amino Acid Change:** p.R158C

**Frequency:** Heterozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6086S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM10646

**Nucleotide Change:** c.725G>A

**Amino Acid Change:** p.C242Y

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6087S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM6932

**Nucleotide Change:** c.733G>A

**Amino Acid Change:** p.G245S

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6090S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM11081

**Nucleotide Change:** c.733G>T

**Amino Acid Change:** p.G245C

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6088S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM43606

**Nucleotide Change:** c.734G>A

**Amino Acid Change:** p.G245D

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard***

**Catalog:** ASE-6089S

**Price:** \$100.00

**Gene Name:**TP53

**Mutation Id:** COSM11196

**Nucleotide Change:** c.734G>T

**Amino Acid Change:** p.G245V

**Frequency:** Homozygous

***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6092S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10656**Nucleotide Change:** c.742C>T**Amino Acid Change:** p.R248W**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6093S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM6549**Nucleotide Change:** c.743G>T**Amino Acid Change:** p.R248L**Frequency:** Homozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6099S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10659**Nucleotide Change:** c.817C>T**Amino Acid Change:** p.R273C**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6098S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10660**Nucleotide Change:** c.818G>A**Amino Acid Change:** p.R273H**Frequency:** Heterozygous***Onco-Ref™ FFPE Cell Scroll Reference Standard*****Catalog:** ASE-6101S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM11232**Nucleotide Change:** c.842A>G**Amino Acid Change:** p.D281G**Frequency:** Heterozygous

**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6103S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM10992**Nucleotide Change:** c.844C>G**Amino Acid Change:** p.R282G**Frequency:** Heterozygous**Onco-Ref™ FFPE Cell Scroll Reference Standard****Catalog:** ASE-6104S**Price:** \$100.00**Gene Name:**TP53**Mutation Id:** COSM44338**Nucleotide Change:** c.845G>A**Amino Acid Change:** p.R282Q**Frequency:** Heterozygous**Cell-Ref™ FFPE Human Cancer Cell Slide - A549****Catalog:** ASO-1001**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - BT474****Catalog:** ASO-1002**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - CaSki****Catalog:** ASO-1003**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - CHL-1****Catalog:** ASO-1004**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - DU-145****Catalog:** ASO-1005**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - H2228****Catalog:** ASO-1006**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - H23****Catalog:** ASO-1007**Price:** \$100.00

**Cell-Ref™ FFPE Human Cancer Cell Slide - H322****Catalog:** ASO-1008**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - H460****Catalog:** ASO-1009**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - HeLa****Catalog:** ASO-1011**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - HepG2****Catalog:** ASO-1012**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - HOP-62****Catalog:** ASO-1013**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - HT-29****Catalog:** ASO-1014**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - Huh-7****Catalog:** ASO-1015**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - IGR-OV1****Catalog:** ASO-1016**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - Jurkat****Catalog:** ASO-1017**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - K-562****Catalog:** ASO-1018**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - M14****Catalog:** ASO-1019**Price:** \$100.00

**Cell-Ref™ FFPE Human Cancer Cell Slide - M21****Catalog:** ASO-1020**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - MCF7****Catalog:** ASO-1021**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - MDA-MB-231****Catalog:** ASO-1022**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - MDA-MB-468****Catalog:** ASO-1023**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - OVCAR-8****Catalog:** ASO-1024**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - PC3****Catalog:** ASO-1025**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - Raji****Catalog:** ASO-1026**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - SKBR3****Catalog:** ASO-1027**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - SK-MEL-2****Catalog:** ASO-1028**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - SK-MEL-5****Catalog:** ASO-1029**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - SN-12C****Catalog:** ASO-1030**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - SW-620**



**Catalog:** ASO-1031

**Price:** \$100.00

**Cell-Ref™ FFPE Human Cancer Cell Slide - T-47D**

**Catalog:** ASO-1032

**Price:** \$100.00

**Cell-Ref™ FFPE Human Cancer Cell Slide - TK-10**

**Catalog:** ASO-1033

**Price:** \$100.00

**Tissu-Ref™ FFPE Mouse Tissue Slides- Brain (Coronal) Slides**

**Catalog:** ASO-2001

**Price:** \$89.00

**Tissu-Ref™ FFPE Mouse Tissue Slides- Brain (Sagittal) Slides**

**Catalog:** ASO-2002

**Price:** \$89.00

**Tissu-Ref™ FFPE Mouse Tissue Slides- Colon Slides**

**Catalog:** ASO-2003

**Price:** \$89.00

**Tissu-Ref™ FFPE Mouse Tissue Slides- Heart Slides**

**Catalog:** ASO-2004

**Price:** \$89.00

**Tissu-Ref™ FFPE Mouse Tissue Slides- Intestine (Duodenum) Slides**

**Catalog:** ASO-2005

**Price:** \$89.00

**Tissu-Ref™ FFPE Mouse Tissue Slides- Intestine (Ileum) Slides**

**Catalog:** ASO-2006

**Price:** \$89.00

**Tissu-Ref™ FFPE Mouse Tissue Slides- Intestine (Jejunum) Slides**

**Catalog:** ASO-2007

**Price:** \$89.00

**Tissu-Ref™ FFPE Mouse Tissue Slides- Kidney Slides**

**Catalog:** ASO-2008

**Price:** \$89.00

**Tissu-Ref™ FFPE Mouse Tissue Slides- Liver Slides**

**Catalog:** ASO-2009

**Price:** \$89.00

***Tissu-Ref™ FFPE Mouse Tissue Slides- Lung Slides***

**Catalog:** ASO-2010

**Price:** \$89.00

***Tissu-Ref™ FFPE Mouse Tissue Slides- Lymph Node Slides***

**Catalog:** ASO-2011

**Price:** \$89.00

***Tissu-Ref™ FFPE Mouse Tissue Slides- Multi-Tissue Slides***

**Catalog:** ASO-2012

**Price:** \$149.00

***Tissu-Ref™ FFPE Mouse Tissue Slides- Pancreas Slides***

**Catalog:** ASO-2013

**Price:** \$89.00

***Tissu-Ref™ FFPE Mouse Tissue Slides- Spleen Slides***

**Catalog:** ASO-2014

**Price:** \$89.00

***Tissu-Ref™ FFPE Mouse Tissue Slides- Stomach Slides***

**Catalog:** ASO-2015

**Price:** \$89.00

***Tissu-Ref™ FFPE Mouse Tissue Slides- Multi-Tissue Block***

**Catalog:** ASO-2012B

**Price:** \$1,500.00

***Quan-Plex™ Patient-like ctDNA Panel***

**Catalog:** ARF-1003CT

**Price:** \$450.00

**Variants:** 8

***Quan-Plex™ Patient-like ctDNA Panel - In Synthetic Plasma***

**Catalog:** ARF-1003CTP

**Price:** \$980.00

**Variants:** 7

***Quan-Plex™ EGFR C7979S/T790M (Cis) FFPE Cell Scroll 1%***

**Catalog:** ARF-1004S-1

**Price:** \$145.00

**Variants:** 2

**Quan-Plex™ EGFR C7979S/T790M (Cis) FFPE Cell Scroll 5%****Catalog:** ARF-1004S-5**Price:** \$145.00**Variants:** 2**Cell-Ref™ FFPE Human Cancer Cell Slide - MDA-MB-453****Catalog:** ASO-1034**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - MDA-MB-175****Catalog:** ASO-1035**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - H1703****Catalog:** ASO-1036**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - H1975****Catalog:** ASO-1037**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - H838****Catalog:** ASO-1038**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - SKMES1****Catalog:** ASO-1039**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - HOP92****Catalog:** ASO-1040**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - H596****Catalog:** ASO-1041**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - H1650****Catalog:** ASO-1042**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - SW1573****Catalog:** ASO-1043**Price:** \$100.00

**Cell-Ref™ FFPE Human Cancer Cell Slide - HCC78****Catalog:** ASO-1044**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - MRC5****Catalog:** ASO-1045**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - SiHa****Catalog:** ASO-1046**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - C33A****Catalog:** ASO-1047**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - 22RV1****Catalog:** ASO-1048**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - LNCAP****Catalog:** ASO-1049**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - LS174T****Catalog:** ASO-1050**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - COLO205****Catalog:** ASO-1051**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - HCT15****Catalog:** ASO-1052**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - SK-MEL-28****Catalog:** ASO-1053**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - C32****Catalog:** ASO-1054**Price:** \$100.00**Cell-Ref™ FFPE Human Cancer Cell Slide - HT144**

**Catalog:** ASO-1055

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - CCRF-CEM***

**Catalog:** ASO-1056

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - SUDHL1***

**Catalog:** ASO-1057

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - SUDHL4***

**Catalog:** ASO-1058

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - HUT78***

**Catalog:** ASO-1059

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - SUDHL6***

**Catalog:** ASO-1060

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - RI-1***

**Catalog:** ASO-1061

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - WSU-NHL***

**Catalog:** ASO-1062

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - 786-O***

**Catalog:** ASO-1063

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - HEK293***

**Catalog:** ASO-1064

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - BXPC3***

**Catalog:** ASO-1065

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - MIACAPA2***

**Catalog:** ASO-1066

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - PANC1***

**Catalog:** ASO-1067

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - PSN1***

**Catalog:** ASO-1068

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - U118MG***

**Catalog:** ASO-1069

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - 3T3***

**Catalog:** ASO-1070

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - CHO***

**Catalog:** ASO-1071

**Price:** \$100.00

***Cell-Ref™ FFPE Human Cancer Cell Slide - CHO-K1***

**Catalog:** ASO-1072

**Price:** \$100.00

***Quan-Plex™ NGS FFPE Cell Scroll Reference Standard***

**Catalog:** ARF-1001S

**Price:** \$375.00

**Variants:** 9

***Quan-Plex™ NGS 10% Formalin-Compromised Reference Standard***

**Catalog:** ARF-1001FC-1

**Price:** \$375.00

**Variants:** 9

***Quan-Plex™ EGFR Patient-like ctDNA Panel-In Synthetic Plasma***

**Catalog:** ARF-1006CTP

**Price:** \$980.00

**Variants:** 10