

Clinical Test Report : Oncomine™ Dx Target Test US v1.8.1

Patient ID: HY Date Of Birth: 01 DEC 2019

Date: 19 DEC 2019

Sample Details

Cancer Type:	Non-small Cell Lung Cancer	Patient ID:	HY	%Cellularity:	
Sample ID:	HY	Gender:	Unknown	Sample Source:	
Sample Condition:	Good	Ordering Physician:	Dr.Lee		
Sample Type:	FFPE	Date Of Birth:	01 DEC 2019		
Collection Date:	16 DEC 2019	Receive Time:	17 DEC 2019 11:16		

Results for Sequence Variations for Therapeutic Use

DNA Sequence Variants for Therapeutic Use

Note: Results for positive variants are listed first to provide therapy information, followed by variants with negative results, followed by variants that were reported as no calls.

Gene	Display Name	Amino Acid Change	Nucleotide Change	Test Result	Hotspot ID	Associated Therapy
BRAF	BRAF V600E	p.Val600Glu	c.1799T>A	POSITIVE	COSM476	Tafinlar+Mekinist® (dabrafenib in combination with trametinib)
BRAF	BRAF V600E	p.Val600Glu	c.1799_1800delTGinsAA	NEGATIVE	COSM475	None Indicated
EGFR	EGFR Exon 19 deletion	p.Glu746_Ala750del	c.2235_2249delGGAA TTAAGAGAAGC	NEGATIVE	COSM6223	None Indicated
EGFR	EGFR Exon 19 deletion	p.Glu746_Ala750del	c.2236_2250delGAAT TAAGAGAAGCA	NEGATIVE	COSM6225	None Indicated
EGFR	EGFR Exon 19 deletion	p.Glu746_Arg748del	c.2239_2247delTTAAGAGAA	NEGATIVE	COSM6218	None Indicated
EGFR	EGFR Exon 19 deletion	p.Glu746_Glu749del	c.2235_2246delGGAA TTAAGAGA	NEGATIVE	COSM28517	None Indicated
EGFR	EGFR Exon 19 deletion	p.Glu746_Ser752delinsAsp	c.2238_2255delATTAGAGAAGCAACATC	NEGATIVE	COSM6220	None Indicated
EGFR	EGFR Exon 19 deletion	p.Glu746_Ser752delinsVal	c.2237_2255delAATT AAGAGAAGCAACATC	NEGATIVE	COSM12384	None Indicated
EGFR	EGFR Exon 19 deletion	p.Glu746_Thr751del	c.2236_2253delGAAT TAAGAGAAGCAACA	NEGATIVE	COSM12728	None Indicated
EGFR	EGFR Exon 19 deletion	p.Glu746_Thr751delinsAla	c.2237_2251delAATT AAGAGAAGCAA	NEGATIVE	COSM12678	None Indicated
EGFR	EGFR Exon 19 deletion	p.Glu746_Thr751delinsIle	c.2235_2252delGGAA TTAAGAGAAGCAACinsAT	NEGATIVE	COSM13551	None Indicated
EGFR	EGFR Exon 19 deletion	p.Glu746_Thr751delinsValAla	c.2237_2253delAATT AAGAGAAGCAACinsTGCT	NEGATIVE	COSM12416	None Indicated
EGFR	EGFR Exon 19 deletion	p.Leu747_Ala750delinsPro	c.2239_2248delTTAAGAGAAGinsC	NEGATIVE	COSM12382	None Indicated
EGFR	EGFR Exon 19 deletion	p.Leu747_Ala750delinsPro	c.2238_2248delATTAGAGAAGinsGC	NEGATIVE	COSM12422	None Indicated
EGFR	EGFR Exon 19 deletion	p.Leu747_Pro753delinsGln	c.2239_2258delTTAAGAGAAGCAACATCTCC	NEGATIVE	COSM12387	None Indicated
EGFR	EGFR Exon 19 deletion	p.Leu747_Pro753delinsSer	c.2240_2257delTAAGAGAAGCAACATCTC	NEGATIVE	COSM12370	None Indicated
EGFR	EGFR Exon 19 deletion	p.Leu747_Ser752del	c.2239_2256delTTAAGAGAAGCAACATCT	NEGATIVE	COSM6255	None Indicated
EGFR	EGFR Exon 19 deletion	p.Leu747_Thr751del	c.2240_2254delTAAGAGAAGCAACAT	NEGATIVE	COSM12369	None Indicated

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Gene	Display Name	Amino Acid Change	Nucleotide Change	Test Result	Hotspot ID	Associated Therapy
EGFR	EGFR Exon 19 deletion	p.Leu747_Thr751delinsGln	c.2238_2252delATTAGAGAAGCAACinsGCA	NEGATIVE	COSM12419	None Indicated
EGFR	EGFR Exon 19 deletion	p.Leu747_Thr751delinsPro	c.2239_2251delTTAAGAGAAGCAinsC	NEGATIVE	COSM12383	None Indicated
EGFR	EGFR Exon 19 deletion	p.Leu747_Thr751delinsSer	c.2240_2251delTAAGAGAAGCAA	NEGATIVE	COSM6210	None Indicated
EGFR	EGFR L858R	p.Leu858Arg	c.2573T>G	NEGATIVE	COSM6224	None Indicated
EGFR	EGFR Exon 19 deletion	p.Lys745_Ala750delinsThr	c.2234_2248delAGGAATTAAGAGAAG	NEGATIVE	COSM1190791	None Indicated
EGFR	EGFR Exon 19 deletion	p.Lys745_Glu749del	c.2233_2247delAAGGAATTAAGAGAA	NEGATIVE	COSM26038	None Indicated

Gene Fusions (RNA) for Therapeutic Use

RNA QC failed. Refer to Lab report for QC information.

The following reference files are used:hg19, Oncomine™ Dx Target Panel US v1.8.1 Fusion Reference. Associated therapy is within Non-Small Cell Lung Carcinoma (NSCLC).

Results for Analytical Sequence Variations Detected**Analytical DNA Sequence Variants Detected**

No Analytical DNA sequence variations detected

Analytical Gene Fusions (RNA) Detected

RNA QC failed. Refer to Lab report for QC information.

Important Note :

The safe and effective use of the variants reported in the Analytical Sequence Variations Detected section has not been established for selecting therapy using this device.

The variants for KRAS(COSM512/p.Gly12Phe/c.34_35delGGinsTT and COSM516/p.Gly12Cys/c.34G>T), MET (COSM707/ p.Thr1010Ile/c.3029C>T) and PIK3CA (COSM754/p.Asn345Lys/c.1035T>A) have been analytically validated.

Performance of all other variants identified by the test, other than clinically validated therapeutic variants and analytically validated variants has not been directly demonstrated.

Note that the base change c.170A>T in MAP2K1 is not associated with COSMIC ID COSM1235478 in the COSMIC database, even though it has been given the Variant HotSpot ID COSM1235478 in the software, the actual base change for COSMIC ID COSM1235478 is c.171G>T in MAP2K1. This does not impact test results.

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Test Description

The Oncomine™ Dx Target Test is a qualitative *in vitro* diagnostic test that uses high throughput parallel sequencing technology. It is indicated to detect sequence variations (hotspot mutations, deletions, and fusions), in 23 cancer related genes on DNA and RNA isolated from Non Small Cell Lung Cancer (NSCLC), formalin-fixed, paraffin-embedded (FFPE) tissues.

Sequence variations in DNA for the following 23 genes are reported: AKT1, ALK, BRAF, CDK4, DDR2, EGFR, ERBB2, ERBB3, FGFR2, FGFR3, HRAS, KIT, KRAS, MAP2K1, MAP2K2, MET, MTOR, NRAS, PDGFRA, PIK3CA, RAF1, RET and ROS1. Remainder of the 12 genes included in this report are not associated with NSCLC.

Sequence variation in RNA for ROS1 gene is also reported

The device is also indicated as a companion diagnostic to identify:

ROS1 fusion positive NSCLC patients for treatment with XALKORI® (crizotinib)

BRAF V600E positive NSCLC patients for treatment with Tafenlar+Mekinist® (dabrafenib in combination with trametinib)

EGFR L858R and Exon 19 deletions positive NSCLC patients for treatment with IRESSA® (gefitinib)

The Oncomine™ Dx Target Test is intended for use on the Ion PGM™ Dx Instrument System and is intended for *in vitro* diagnostic use by trained personnel in a professional laboratory environment.

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Results for Analytical Sequence Variations Not Detected

Analytical DNA Sequence Variants Not Detected

Note: Results for negative variants are listed first, followed by variants that were reported as no calls.

Gene	Amino Acid Change	Nucleotide Change	Test Result	Hotspot ID
AKT1	p.Glu17Lys	c.49G>A	NEGATIVE	COSM33765
ALK	p.Arg1275Gln	c.3824G>A	NEGATIVE	COSM28056
ALK	p.Arg1275Leu	c.3824G>T	NEGATIVE	COSM28060
ALK	p.Cys1156Tyr	c.3467G>A	NEGATIVE	COSM99136
ALK	p.Gly1128Ala	c.3383G>C	NEGATIVE	COSM98475
ALK	p.Gly1202Arg	c.3604G>A	NEGATIVE	COSM144250
ALK	p.Ile1171Asn	c.3512T>A	NEGATIVE	COSM28498
ALK	p.Ile1171Thr	c.3512T>C	NEGATIVE	COSM4381100
ALK	p.Leu1152Arg	c.3455T>G	NEGATIVE	COSM97185
ALK	p.Leu1152Pro	c.3455T>C	NEGATIVE	COSM1407659
ALK	p.Leu1196Gln	c.3587T>A	NEGATIVE	COSM1169447
ALK	p.Leu1196Met	c.3586C>A	NEGATIVE	COSM99137
ALK	p.Phe1174Cys	c.3521T>G	NEGATIVE	COSM28059
ALK	p.Phe1174Ile	c.3520T>A	NEGATIVE	COSM28491
ALK	p.Phe1174Leu	c.3522C>G	NEGATIVE	COSM28061
ALK	p.Phe1174Leu	c.3522C>A	NEGATIVE	COSM28055
ALK	p.Phe1174Leu	c.3520T>C	NEGATIVE	COSM28057
ALK	p.Phe1174Ser	c.3521T>C	NEGATIVE	COSM53063
ALK	p.Phe1174Val	c.3520T>G	NEGATIVE	COSM28054
ALK	p.Phe1245Cys	c.3734T>G	NEGATIVE	COSM28500
ALK	p.Phe1245Ile	c.3733T>A	NEGATIVE	COSM28492
ALK	p.Phe1245Leu	c.3735C>G	NEGATIVE	COSM28062
ALK	p.Phe1245Leu	c.3735C>A	NEGATIVE	COSM28493
ALK	p.Phe1245Val	c.3733T>G	NEGATIVE	COSM28499
ALK	p.Ser1206Tyr	c.3617C>A	NEGATIVE	COSM144251
ALK	p.Val1180Leu	c.3538G>C	NEGATIVE	COSM4381101
AR	p.Phe814Val	c.2440T>G	NEGATIVE	COSM150793
AR	p.Thr878Ala	c.2632A>G	NEGATIVE	COSM236693
BRAF	p.Asp594Asn	c.1780G>A	NEGATIVE	COSM27639
BRAF	p.Asp594Gly	c.1781A>G	NEGATIVE	COSM467
BRAF	p.Gly466Glu	c.1397G>A	NEGATIVE	COSM453
BRAF	p.Gly466Val	c.1397G>T	NEGATIVE	COSM451
BRAF	p.Gly469Ala	c.1406G>C	NEGATIVE	COSM460
BRAF	p.Gly469Arg	c.1405G>A	NEGATIVE	COSM457
BRAF	p.Gly469Val	c.1406G>T	NEGATIVE	COSM459
BRAF	p.Lys601Glu	c.1801A>G	NEGATIVE	COSM478
BRAF	p.Val600Arg	c.1798_1799delGTinsAG	NEGATIVE	COSM474
BRAF	p.Val600Lys	c.1798_1799delGTinsAA	NEGATIVE	COSM473
BRAF	p.Val600_Lys601delinsGlu	c.1799_1801delTGA	NEGATIVE	COSM1133
CDK4	p.Arg24Cys	c.70C>T	NEGATIVE	COSM1677139
CDK4	p.Arg24His	c.71G>A	NEGATIVE	COSM1989836
CDK4	p.Arg24Leu	c.71G>T	NEGATIVE	COSM363684
CDK4	p.Arg24Ser	c.70C>A	NEGATIVE	COSM3463914

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CDK4	p.Lys22Arg	c.65A>G	NEGATIVE	COSM232013
CDK4	p.Lys22Gln	c.64A>C	NEGATIVE	OM3153
CDK4	p.Lys22Met	c.65A>T	NEGATIVE	COSM3463915
CTNNB1	p.Asp32Asn	c.94G>A	NEGATIVE	COSM5672
CTNNB1	p.Asp32Gly	c.95A>G	NEGATIVE	COSM5681
CTNNB1	p.Asp32His	c.94G>C	NEGATIVE	COSM5668
CTNNB1	p.Asp32Tyr	c.94G>T	NEGATIVE	COSM5661
CTNNB1	p.Gly34Arg	c.100G>A	NEGATIVE	COSM5686
CTNNB1	p.Gly34Glu	c.101G>A	NEGATIVE	COSM5671
CTNNB1	p.Ser33Cys	c.98C>G	NEGATIVE	COSM5677
CTNNB1	p.Ser33Phe	c.98C>T	NEGATIVE	COSM5669
CTNNB1	p.Ser33Pro	c.97T>C	NEGATIVE	COSM5682
CTNNB1	p.Ser33Tyr	c.98C>A	NEGATIVE	COSM5673
CTNNB1	p.Ser37Ala	c.109T>G	NEGATIVE	COSM5675
CTNNB1	p.Ser37Cys	c.110C>G	NEGATIVE	COSM5679
CTNNB1	p.Ser37Phe	c.110C>T	NEGATIVE	COSM5662
CTNNB1	p.Ser45Phe	c.134C>T	NEGATIVE	COSM5667
CTNNB1	p.Ser45Pro	c.133T>C	NEGATIVE	COSM5663
CTNNB1	p.Thr41Ala	c.121A>G	NEGATIVE	COSM5664
CTNNB1	p.Thr41Ile	c.122C>T	NEGATIVE	COSM5676
DDR2	p.Arg124Leu	c.371G>T	NEGATIVE	COSM400880
DDR2	p.Arg124Trp	c.370C>T	NEGATIVE	COSM4024594
EGFR	p.Ala289Asp	c.866C>A	NEGATIVE	COSM21685
EGFR	p.Ala289Thr	c.865G>A	NEGATIVE	COSM21686
EGFR	p.Ala289Val	c.866C>T	NEGATIVE	COSM21687
EGFR	p.Arg108Gly	c.322A>G	NEGATIVE	COSM1451536
EGFR	p.Arg108Lys	c.323G>A	NEGATIVE	COSM21683
EGFR	p.Glu709Ala	c.2126A>C	NEGATIVE	COSM13427
EGFR	p.Glu709Gly	c.2126A>G	NEGATIVE	COSM13009
EGFR	p.Glu709Lys	c.2125G>A	NEGATIVE	COSM12988
EGFR	p.Glu709Val	c.2126A>T	NEGATIVE	COSM12371
EGFR	p.Gly598Ala	c.1793G>C	NEGATIVE	COSM3412196
EGFR	p.Gly598Val	c.1793G>T	NEGATIVE	COSM21690
EGFR	p.Gly719Ala	c.2156G>C	NEGATIVE	COSM6239
EGFR	p.Gly719Asp	c.2156G>A	NEGATIVE	COSM18425
EGFR	p.Gly719Cys	c.2155G>T	NEGATIVE	COSM6253
EGFR	p.Gly719Ser	c.2155G>A	NEGATIVE	COSM6252
EGFR	p.Leu858Met	c.2572C>A	NEGATIVE	COSM12366
EGFR	p.Leu861Arg	c.2582T>G	NEGATIVE	COSM12374
EGFR	p.Leu861Gln	c.2582T>A	NEGATIVE	COSM6213
EGFR	p.Ser492Arg	c.1474A>C	NEGATIVE	COSM236671
EGFR	p.Ser492Arg	c.1476C>A	NEGATIVE	COSM236670
EGFR	p.Ser768Ile	c.2303G>T	NEGATIVE	COSM6241
EGFR	p.Thr790Met	c.2369C>T	NEGATIVE	COSM6240
ERBB2	p.Arg678Gln	c.2033G>A	NEGATIVE	COSM436498
ERBB2	p.Arg896Cys	c.2686C>T	NEGATIVE	COSM14066
ERBB2	p.Arg896His	c.2687G>A	NEGATIVE	COSM119971
ERBB2	p.Asp769His	c.2305G>C	NEGATIVE	COSM13170
ERBB2	p.Asp769Tyr	c.2305G>T	NEGATIVE	COSM1251412

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ERBB2	p.Gly776Val	c.2327G>T	NEGATIVE	COSM18609
ERBB2	p.Leu755Met	c.2263T>A	NEGATIVE	COSM1205571
ERBB2	p.Leu755Pro	c.2263_2264delTTinsCC	NEGATIVE	COSM683
ERBB2	p.Ser310Phe	c.929C>T	NEGATIVE	COSM48358
ERBB2	p.Ser310Tyr	c.929C>A	NEGATIVE	COSM94225
ERBB2	p.Thr733Ile	c.2198C>T	NEGATIVE	COSM14059
ERBB2	p.Val777Leu	c.2329G>T	NEGATIVE	COSM14062
ERBB2	p.Val842Ile	c.2524G>A	NEGATIVE	COSM14065
ERBB3	p.Ala232Thr	c.694G>A	NEGATIVE	COSM4043440
ERBB3	p.Ala232Val	c.695C>T	NEGATIVE	COSM1242239
ERBB3	p.Asp297Tyr	c.889G>T	NEGATIVE	COSM160822
ERBB3	p.Asp297Val	c.890A>T	NEGATIVE	COSM941490
ERBB3	p.Glu332Lys	c.994G>A	NEGATIVE	COSM254677
ERBB3	p.Met60Arg	c.179T>G	NEGATIVE	COSM941484
ERBB3	p.Met60Leu	c.178A>T	NEGATIVE	COSM1606366
ERBB3	p.Met60Lys	c.179T>A	NEGATIVE	COSM254678
ERBB3	p.Met91Ile	c.273G>A	NEGATIVE	COSM122890
ERBB3	p.Met91Ile	c.273G>C	NEGATIVE	COSM1299636
ERBB3	p.Val104Leu	c.310G>C	NEGATIVE	COSM160824
ERBB3	p.Val104Leu	c.310G>T	NEGATIVE	COSM191840
ERBB3	p.Val104Met	c.310G>A	NEGATIVE	COSM172423
ERBB4	p.Arg711Cys	c.2131C>T	NEGATIVE	COSM160827
ERBB4	p.Arg711Leu	c.2132G>T	NEGATIVE	OM3150
ESR1	p.Asp538Gly	c.1613A>G	NEGATIVE	COSM94250
ESR1	p.Tyr537Asn	c.1609T>A	NEGATIVE	COSM1074635
ESR1	p.Tyr537Cys	c.1610A>G	NEGATIVE	COSM1074637
ESR1	p.Tyr537Ser	c.1610A>C	NEGATIVE	COSM1074639
FGFR2	p.Ala314Asp	c.941C>A	NEGATIVE	COSM49171
FGFR2	p.Asn549His	c.1645A>C	NEGATIVE	COSM250083
FGFR2	p.Asn549Lys	c.1647T>G	NEGATIVE	COSM36902
FGFR2	p.Asn549Lys	c.1647T>A	NEGATIVE	COSM36912
FGFR2	p.Asn549Ser	c.1646A>G	NEGATIVE	COSM3665553
FGFR2	p.Cys382Arg	c.1144T>C	NEGATIVE	COSM36906
FGFR2	p.Cys382Tyr	c.1145G>A	NEGATIVE	COSM915493
FGFR2	p.Lys659Asn	c.1977G>T	NEGATIVE	COSM49173
FGFR2	p.Lys659Asn	c.1977G>C	NEGATIVE	COSM683054
FGFR2	p.Lys659Glu	c.1975A>G	NEGATIVE	COSM36909
FGFR2	p.Lys659Met	c.1976A>T	NEGATIVE	COSM49175
FGFR2	p.Pro253Arg	c.758C>G	NEGATIVE	COSM49170
FGFR2	p.Pro253Leu	c.758C>T	NEGATIVE	COSM537801
FGFR2	p.Ser252Trp	c.755C>G	NEGATIVE	COSM36903
FGFR2	p.Tyr375Cys	c.1124A>G	NEGATIVE	COSM36904
FGFR2	p.Tyr375His	c.1123T>C	NEGATIVE	COSM1560916
FGFR3	p.Gly697Cys	c.2089G>T	NEGATIVE	COSM24802
GNA11	p.Arg183Cys	c.546_547delCCinsTT	NEGATIVE	COSM52974
GNA11	p.Arg183His	c.548G>A	NEGATIVE	COSM52973
GNA11	p.Arg183Leu	c.548G>T	NEGATIVE	COSM1392333
GNA11	p.Gln209Leu	c.626_627delAGinsTA	NEGATIVE	COSM52971
GNA11	p.Gln209Leu	c.626A>T	NEGATIVE	COSM52969

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GNA11	p.Gln209Pro	c.626A>C	NEGATIVE	COSM52970
GNAQ	p.Arg183Gln	c.548G>A	NEGATIVE	COSM52975
GNAQ	p.Gln209Arg	c.626A>G	NEGATIVE	COSM28760
GNAQ	p.Gln209Leu	c.625_626delCAinsTT	NEGATIVE	COSM28759
GNAQ	p.Gln209Leu	c.626A>T	NEGATIVE	COSM28757
GNAQ	p.Gln209Pro	c.626A>C	NEGATIVE	COSM28758
HRAS	p.Gln61Arg	c.182A>G	NEGATIVE	COSM499
HRAS	p.Gln61His	c.183G>T	NEGATIVE	COSM502
HRAS	p.Gln61His	c.183G>C	NEGATIVE	COSM503
HRAS	p.Gln61Leu	c.182A>T	NEGATIVE	COSM498
HRAS	p.Gln61Lys	c.181C>A	NEGATIVE	COSM496
HRAS	p.Gln61Pro	c.182A>C	NEGATIVE	COSM500
HRAS	p.Gly12Ala	c.35G>C	NEGATIVE	COSM485
HRAS	p.Gly12Arg	c.34G>C	NEGATIVE	COSM482
HRAS	p.Gly12Asp	c.35G>A	NEGATIVE	COSM484
HRAS	p.Gly12Cys	c.34G>T	NEGATIVE	COSM481
HRAS	p.Gly12Ser	c.34G>A	NEGATIVE	COSM480
HRAS	p.Gly12Val	c.35G>T	NEGATIVE	COSM483
HRAS	p.Gly13Arg	c.37G>C	NEGATIVE	COSM486
HRAS	p.Gly13Asp	c.38G>A	NEGATIVE	COSM490
HRAS	p.Gly13Cys	c.37G>T	NEGATIVE	COSM488
HRAS	p.Gly13Ser	c.37G>A	NEGATIVE	COSM487
HRAS	p.Gly13Val	c.38G>T	NEGATIVE	COSM489
IDH1	p.Arg132Cys	c.394C>T	NEGATIVE	COSM28747
IDH1	p.Arg132Gly	c.394C>G	NEGATIVE	COSM28749
IDH1	p.Arg132His	c.395G>A	NEGATIVE	COSM28746
IDH1	p.Arg132Leu	c.395G>T	NEGATIVE	COSM28750
IDH1	p.Arg132Ser	c.394C>A	NEGATIVE	COSM28748
IDH2	p.Arg140Gln	c.419G>A	NEGATIVE	COSM41590
IDH2	p.Arg140Leu	c.419G>T	NEGATIVE	COSM41875
IDH2	p.Arg140Trp	c.418C>T	NEGATIVE	COSM41877
IDH2	p.Arg172Gly	c.514A>G	NEGATIVE	COSM33731
IDH2	p.Arg172Lys	c.515G>A	NEGATIVE	COSM33733
IDH2	p.Arg172Met	c.515G>T	NEGATIVE	COSM33732
IDH2	p.Arg172Ser	c.516G>T	NEGATIVE	COSM34090
IDH2	p.Arg172Ser	c.516G>C	NEGATIVE	COSM133672
IDH2	p.Arg172Trp	c.514A>T	NEGATIVE	COSM34039
JAK1	p.Arg724Cys	c.2170C>T	NEGATIVE	COSM3741347
JAK1	p.Arg724His	c.2171G>A	NEGATIVE	COSM41751
JAK1	p.Ser703Gly	c.2107A>G	NEGATIVE	COSM1343907
JAK1	p.Ser703Ile	c.2108G>T	NEGATIVE	COSM305942
JAK1	p.Ser703Thr	c.2108G>C	NEGATIVE	COSM96541
JAK1	p.Val658Phe	c.1972G>T	NEGATIVE	COSM41757
JAK2	p.Val617Phe	c.1849G>T	NEGATIVE	COSM12600
JAK3	p.Arg657Gln	c.1970G>A	NEGATIVE	COSM35864
JAK3	p.Leu527Arg	c.1580T>G	NEGATIVE	COSM4075497
JAK3	p.Leu527Pro	c.1580T>C	NEGATIVE	COSM20527
JAK3	p.Ser493Arg	c.1477A>C	NEGATIVE	COSM711172
JAK3	p.Ser493Cys	c.1477A>T	NEGATIVE	COSM48455

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Gene	Amino Acid Change	Nucleotide Change	Test Result	Hotspot ID
KIT	p.Arg796Lys	c.2387G>A	NEGATIVE	COSM1600411
KIT	p.Asn822Lys	c.2466T>A	NEGATIVE	COSM1321
KIT	p.Asn822Lys	c.2466T>G	NEGATIVE	COSM1322
KIT	p.Asp419_Arg420del	c.1255_1260delGACAGG	NEGATIVE	COSM1578132
KIT	p.Asp419del	c.1255_1257delGAC	NEGATIVE	COSM29014
KIT	p.Asp579del	c.1735_1737delGAT	NEGATIVE	COSM1294
KIT	p.Asp816His	c.2446G>C	NEGATIVE	COSM1311
KIT	p.Asp816Tyr	c.2446G>T	NEGATIVE	COSM1310
KIT	p.Asp816Val	c.2447A>T	NEGATIVE	COSM1314
KIT	p.Leu576Pro	c.1727T>C	NEGATIVE	COSM1290
KIT	p.Lys642Glu	c.1924A>G	NEGATIVE	COSM1304
KIT	p.Trp557Arg	c.1669T>A	NEGATIVE	COSM1216
KIT	p.Trp557Arg	c.1669T>C	NEGATIVE	COSM1219
KIT	p.Trp557Gly	c.1669T>G	NEGATIVE	COSM1221
KIT	p.Trp557_Lys558del	c.1669_1674delTGGAAG	NEGATIVE	COSM1217
KIT	p.Trp557_Val559delinsPhe	c.1670_1675delGGAAGG	NEGATIVE	COSM1226
KIT	p.Val559Ala	c.1676T>C	NEGATIVE	COSM1255
KIT	p.Val559Asp	c.1676T>A	NEGATIVE	COSM1252
KIT	p.Val559Gly	c.1676T>G	NEGATIVE	COSM1253
KIT	p.Val559del	c.1679_1681delTTG	NEGATIVE	COSM1247
KIT	p.Val560Asp	c.1679T>A	NEGATIVE	COSM1257
KIT	p.Val654Ala	c.1961T>C	NEGATIVE	COSM12706
KIT	p.Val825Ala	c.2474T>C	NEGATIVE	COSM1323
KRAS	p.Ala146Pro	c.436G>C	NEGATIVE	COSM19905
KRAS	p.Ala146Thr	c.436G>A	NEGATIVE	COSM19404
KRAS	p.Ala146Val	c.437C>T	NEGATIVE	COSM19900
KRAS	p.Ala59Glu	c.176C>A	NEGATIVE	COSM547
KRAS	p.Ala59Gly	c.176C>G	NEGATIVE	COSM28518
KRAS	p.Ala59Thr	c.175G>A	NEGATIVE	COSM546
KRAS	p.Gln61Arg	c.182A>G	NEGATIVE	COSM552
KRAS	p.Gln61Glu	c.181C>G	NEGATIVE	COSM550
KRAS	p.Gln61His	c.183A>T	NEGATIVE	COSM555
KRAS	p.Gln61His	c.183A>C	NEGATIVE	COSM554
KRAS	p.Gln61Leu	c.182A>T	NEGATIVE	COSM553
KRAS	p.Gln61Lys	c.181C>A	NEGATIVE	COSM549
KRAS	p.Gln61Lys	c.180_181delTCinsAA	NEGATIVE	COSM87298
KRAS	p.Gln61Pro	c.182A>C	NEGATIVE	COSM551
KRAS	p.Gly12Ala	c.35G>C	NEGATIVE	COSM522
KRAS	p.Gly12Arg	c.34G>C	NEGATIVE	COSM518
KRAS	p.Gly12Asp	c.35G>A	NEGATIVE	COSM521
KRAS	p.Gly12Cys	c.34G>T	NEGATIVE	COSM516
KRAS	p.Gly12Phe	c.34_35delGGinsTT	NEGATIVE	COSM512
KRAS	p.Gly12Ser	c.34G>A	NEGATIVE	COSM517
KRAS	p.Gly12Val	c.35G>T	NEGATIVE	COSM520
KRAS	p.Gly13Ala	c.38G>C	NEGATIVE	COSM533
KRAS	p.Gly13Arg	c.37G>C	NEGATIVE	COSM529
KRAS	p.Gly13Asp	c.38_39delGCinsAT	NEGATIVE	COSM531
KRAS	p.Gly13Asp	c.38G>A	NEGATIVE	COSM532
KRAS	p.Gly13Cys	c.37G>T	NEGATIVE	COSM527

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KRAS	p.Gly13Ser	c.37G>A	NEGATIVE	COSM528
KRAS	p.Gly13Val	c.38G>T	NEGATIVE	COSM534
KRAS	p.Lys117Asn	c.351A>T	NEGATIVE	COSM28519
KRAS	p.Lys117Asn	c.351A>C	NEGATIVE	COSM19940
MAP2K1	p.Glu203Lys	c.607G>A	NEGATIVE	COSM232755
MAP2K1	p.Glu203Val	c.608A>T	NEGATIVE	COSM3386991
MAP2K1	p.Lys57Asn	c.171G>C	NEGATIVE	OM3156
MAP2K1	p.Lys57Asn	c.171G>T	NEGATIVE	OM3157
MAP2K1	p.Lys57Met	c.170A>T	NEGATIVE	COSM1235478
MAP2K1	p.Lys57Thr	c.170A>C	NEGATIVE	OM3155
MAP2K1	p.Phe53Ile	c.157T>A	NEGATIVE	COSM3503329
MAP2K1	p.Phe53Leu	c.157T>C	NEGATIVE	COSM555604
MAP2K1	p.Phe53Leu	c.159T>A	NEGATIVE	COSM1725008
MAP2K1	p.Phe53Leu	c.159T>G	NEGATIVE	OM3154
MAP2K1	p.Phe53Val	c.157T>G	NEGATIVE	COSM1562837
MAP2K1	p.Pro124Gln	c.371C>A	NEGATIVE	COSM1167912
MAP2K1	p.Pro124Leu	c.371C>T	NEGATIVE	COSM1315861
MAP2K1	p.Pro124Ser	c.370C>T	NEGATIVE	COSM235614
MAP2K2	p.Gln60Pro	c.179A>C	NEGATIVE	COSM145610
MAP2K2	p.Phe57Leu	c.171T>G	NEGATIVE	OM3158
MAP2K2	p.Phe57Leu	c.171T>A	NEGATIVE	COSM3389034
MAP2K2	p.Phe57Leu	c.169T>C	NEGATIVE	COSM1235618
MAP2K2	p.Phe57Val	c.169T>G	NEGATIVE	COSM3534171
MET	NA	NA	NEGATIVE	COSM29633
MET	NA	NA	NEGATIVE	COSM24687
MET	NA	NA	NEGATIVE	COSM35468
MET	p.His1112Arg	c.3335A>G	NEGATIVE	COSM703
MET	p.His1112Leu	c.3335A>T	NEGATIVE	COSM698
MET	p.His1112Tyr	c.3334C>T	NEGATIVE	COSM696
MET	p.Met1268Ile	c.3804G>A	NEGATIVE	COSM694
MET	p.Met1268Thr	c.3803T>C	NEGATIVE	COSM691
MET	p.Thr1010Ile	c.3029C>T	NEGATIVE	COSM707
MET	p.Tyr1021Asn	c.3061T>A	NEGATIVE	COSM48564
MET	p.Tyr1021Phe	c.3062A>T	NEGATIVE	COSM339515
MET	p.Tyr1248Cys	c.3743A>G	NEGATIVE	COSM699
MET	p.Tyr1248His	c.3742T>C	NEGATIVE	COSM690
MET	p.Tyr1253Asp	c.3757T>G	NEGATIVE	COSM700
MTOR	p.Cys1483Arg	c.4447T>C	NEGATIVE	COSM3747775
MTOR	p.Cys1483Phe	c.4448G>T	NEGATIVE	COSM462616
MTOR	p.Cys1483Trp	c.4449C>G	NEGATIVE	OM3149
MTOR	p.Cys1483Tyr	c.4448G>A	NEGATIVE	COSM462615
MTOR	p.Glu1799Lys	c.5395G>A	NEGATIVE	COSM180789
MTOR	p.Leu2427Arg	c.7280T>G	NEGATIVE	OM3148
MTOR	p.Leu2427Gln	c.7280T>A	NEGATIVE	COSM1185313
MTOR	p.Phe1888Ile	c.5662T>A	NEGATIVE	COSM3358968
MTOR	p.Phe1888Leu	c.5664C>G	NEGATIVE	COSM462604
MTOR	p.Phe1888Leu	c.5664C>A	NEGATIVE	COSM893813
MTOR	p.Phe1888Leu	c.5662T>C	NEGATIVE	COSM3358967
MTOR	p.Phe1888Val	c.5662T>G	NEGATIVE	COSM893814

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MTOR	p.Ser2215Phe	c.6644C>T	NEGATIVE	COSM1686998
MTOR	p.Ser2215Pro	c.6643T>C	NEGATIVE	COSM1560108
MTOR	p.Ser2215Tyr	c.6644C>A	NEGATIVE	COSM20417
MTOR	p.Thr1977Arg	c.5930C>G	NEGATIVE	COSM462602
MTOR	p.Thr1977Lys	c.5930C>A	NEGATIVE	COSM462601
MTOR	p.Thr1977Ser	c.5929A>T	NEGATIVE	COSM1289945
MTOR	p.Val2006Ile	c.6016G>A	NEGATIVE	COSM893804
MTOR	p.Val2006Leu	c.6016G>C	NEGATIVE	COSM1134662
MTOR	p.Val2006Phe	c.6016G>T	NEGATIVE	COSM249481
NRAS	p.Ala146Thr	c.436G>A	NEGATIVE	COSM27174
NRAS	p.Ala146Val	c.437C>T	NEGATIVE	COSM4170228
NRAS	p.Ala59Thr	c.175G>A	NEGATIVE	COSM578
NRAS	p.Gln61Arg	c.182A>G	NEGATIVE	COSM584
NRAS	p.Gln61Glu	c.181C>G	NEGATIVE	COSM581
NRAS	p.Gln61His	c.183A>T	NEGATIVE	COSM585
NRAS	p.Gln61His	c.183A>C	NEGATIVE	COSM586
NRAS	p.Gln61Leu	c.182A>T	NEGATIVE	COSM583
NRAS	p.Gln61Lys	c.181C>A	NEGATIVE	COSM580
NRAS	p.Gln61Pro	c.182A>C	NEGATIVE	COSM582
NRAS	p.Gly12Ala	c.35G>C	NEGATIVE	COSM565
NRAS	p.Gly12Arg	c.34G>C	NEGATIVE	COSM561
NRAS	p.Gly12Asp	c.35G>A	NEGATIVE	COSM564
NRAS	p.Gly12Cys	c.34G>T	NEGATIVE	COSM562
NRAS	p.Gly12Ser	c.34G>A	NEGATIVE	COSM563
NRAS	p.Gly12Val	c.35G>T	NEGATIVE	COSM566
NRAS	p.Gly13Ala	c.38G>C	NEGATIVE	COSM575
NRAS	p.Gly13Arg	c.37G>C	NEGATIVE	COSM569
NRAS	p.Gly13Asp	c.38G>A	NEGATIVE	COSM573
NRAS	p.Gly13Cys	c.37G>T	NEGATIVE	COSM570
NRAS	p.Gly13Ser	c.37G>A	NEGATIVE	COSM571
NRAS	p.Gly13Val	c.38G>T	NEGATIVE	COSM574
NRAS	p.Lys117Asn	c.351G>T	NEGATIVE	MAN13
PDGFRA	p.Asn659Lys	c.1977C>A	NEGATIVE	COSM22415
PDGFRA	p.Asn659Lys	c.1977C>G	NEGATIVE	COSM22414
PDGFRA	p.Asn659Tyr	c.1975A>T	NEGATIVE	COSM22416
PDGFRA	p.Asp842Tyr	c.2524G>T	NEGATIVE	COSM12396
PDGFRA	p.Asp842Val	c.2525A>T	NEGATIVE	COSM736
PDGFRA	p.Asp842_His845del	c.2526_2537delCATCATGCATGA	NEGATIVE	COSM737
PDGFRA	p.Asp842_Met844del	c.2524_2532delGACATCATG	NEGATIVE	COSM12401
PDGFRA	p.Ile843_Asp846del	c.2527_2538delATCATGCATGAT	NEGATIVE	COSM12400
PDGFRA	p.Ile843_Ser847delinsThr	c.2528_2539delTCATGCATGATT	NEGATIVE	COSM12407
PDGFRA	p.Val561Asp	c.1682T>A	NEGATIVE	COSM739
PIK3CA	p.Arg108His	c.323G>A	NEGATIVE	COSM27497
PIK3CA	p.Arg38Cys	c.112C>T	NEGATIVE	COSM744
PIK3CA	p.Arg38Gly	c.112C>G	NEGATIVE	COSM40945
PIK3CA	p.Arg38His	c.113G>A	NEGATIVE	COSM745
PIK3CA	p.Arg38Ser	c.112C>A	NEGATIVE	COSM87310
PIK3CA	p.Arg88Gln	c.263G>A	NEGATIVE	COSM746
PIK3CA	p.Arg93Gln	c.278G>A	NEGATIVE	COSM86041

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PIK3CA	p.Arg93Trp	c.277C>T	NEGATIVE	COSM27493
PIK3CA	p.Asn1044Lys	c.3132T>A	NEGATIVE	COSM12592
PIK3CA	p.Asn345Ile	c.1034A>T	NEGATIVE	COSM94978
PIK3CA	p.Asn345Lys	c.1035T>A	NEGATIVE	COSM754
PIK3CA	p.Cys378Arg	c.1132T>C	NEGATIVE	COSM756
PIK3CA	p.Cys378Phe	c.1133G>T	NEGATIVE	COSM21450
PIK3CA	p.Cys378Tyr	c.1133G>A	NEGATIVE	COSM1041478
PIK3CA	p.Cys420Arg	c.1258T>C	NEGATIVE	COSM757
PIK3CA	p.Cys901Arg	c.2701T>C	NEGATIVE	COSM1420899
PIK3CA	p.Cys901Phe	c.2702G>T	NEGATIVE	COSM769
PIK3CA	p.Cys901Tyr	c.2702G>A	NEGATIVE	COSM1420901
PIK3CA	p.Gln546Arg	c.1637A>G	NEGATIVE	COSM12459
PIK3CA	p.Gln546Glu	c.1636C>G	NEGATIVE	COSM6147
PIK3CA	p.Gln546Lys	c.1636C>A	NEGATIVE	COSM766
PIK3CA	p.Gln546Pro	c.1637A>C	NEGATIVE	COSM767
PIK3CA	p.Glu365Gly	c.1094A>G	NEGATIVE	COSM1420797
PIK3CA	p.Glu365Lys	c.1093G>A	NEGATIVE	COSM86044
PIK3CA	p.Glu365Val	c.1094A>T	NEGATIVE	COSM1484860
PIK3CA	p.Glu39Lys	c.115G>A	NEGATIVE	COSM30625
PIK3CA	p.Glu542Lys	c.1624G>A	NEGATIVE	COSM760
PIK3CA	p.Glu542Val	c.1625A>T	NEGATIVE	COSM762
PIK3CA	p.Glu545Ala	c.1634A>C	NEGATIVE	COSM12458
PIK3CA	p.Glu545Asp	c.1635G>C	NEGATIVE	COSM27374
PIK3CA	p.Glu545Asp	c.1635G>T	NEGATIVE	COSM765
PIK3CA	p.Glu545Gln	c.1633G>C	NEGATIVE	COSM27133
PIK3CA	p.Glu545Gly	c.1634A>G	NEGATIVE	COSM764
PIK3CA	p.Glu545Lys	c.1633G>A	NEGATIVE	COSM763
PIK3CA	p.Glu547Lys	c.1639G>A	NEGATIVE	COSM29315
PIK3CA	p.Glu726Gly	c.2177A>G	NEGATIVE	COSM1420887
PIK3CA	p.Glu726Lys	c.2176G>A	NEGATIVE	COSM87306
PIK3CA	p.Glu81Lys	c.241G>A	NEGATIVE	COSM27502
PIK3CA	p.Gly1049Arg	c.3145G>C	NEGATIVE	COSM12597
PIK3CA	p.Gly1049Ser	c.3145G>A	NEGATIVE	COSM777
PIK3CA	p.Gly106Val	c.317G>T	NEGATIVE	COSM748
PIK3CA	p.His1047Arg	c.3140A>G	NEGATIVE	COSM775
PIK3CA	p.His1047Leu	c.3140A>T	NEGATIVE	COSM776
PIK3CA	p.His1047Tyr	c.3139C>T	NEGATIVE	COSM774
PIK3CA	p.His701Arg	c.2102A>G	NEGATIVE	COSM1420881
PIK3CA	p.His701Pro	c.2102A>C	NEGATIVE	COSM778
PIK3CA	p.Lys111Glu	c.331A>G	NEGATIVE	COSM13570
PIK3CA	p.Met1043Ile	c.3129G>A	NEGATIVE	COSM29313
PIK3CA	p.Met1043Ile	c.3129G>T	NEGATIVE	COSM773
PIK3CA	p.Met1043Val	c.3127A>G	NEGATIVE	COSM12591
PIK3CA	p.Pro539Arg	c.1616C>G	NEGATIVE	COSM759
PIK3CA	p.Thr1025Ala	c.3073A>G	NEGATIVE	COSM771
PIK3CA	p.Tyr1021Cys	c.3062A>G	NEGATIVE	COSM12461
PIK3CA	p.Val344Ala	c.1031T>C	NEGATIVE	COSM86951
PIK3CA	p.Val344Gly	c.1031T>G	NEGATIVE	COSM22540
RAF1	p.Ser257Leu	c.770C>T	NEGATIVE	COSM181063

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RAF1	p.Ser257Trp	c.770C>G	NEGATIVE	COSM581519
RAF1	p.Thr421Met	c.1262_1263delCCinsTG	NEGATIVE	MAN9
RET	p.Ala883Phe	c.2646_2648delAGCinsTTT	NEGATIVE	COSM981
RET	p.Ala883Ser	c.2647G>T	NEGATIVE	COSM133167
RET	p.Asp898_Glu901del	c.2694_2705delTGTTTATGAAGA	NEGATIVE	COSM962
RET	p.Cys618Arg	c.1852T>C	NEGATIVE	COSM29803
RET	p.Cys618Tyr	c.1853G>A	NEGATIVE	COSM980
RET	p.Cys620Arg	c.1858T>C	NEGATIVE	COSM29804
RET	p.Cys634Arg	c.1900T>C	NEGATIVE	COSM966
RET	p.Glu768Asp	c.2304G>C	NEGATIVE	COSM21338
RET	p.Glu768Gly	c.2303A>G	NEGATIVE	COSM1347811
RET	p.Met918Thr	c.2753T>C	NEGATIVE	COSM965
ROS1	p.Gly2032Arg	c.6094G>C	NEGATIVE	MAN11
ROS1	p.Gly2032Arg	c.6094G>A	NEGATIVE	MAN10
ROS1	p.Leu1951Met	c.5851C>A	NEGATIVE	COSM1072521
SMO	p.Arg290Cys	c.868C>T	NEGATIVE	OM3152
SMO	p.Arg290His	c.869G>A	NEGATIVE	COSM1699347
SMO	p.Arg290Ser	c.868C>A	NEGATIVE	COSM48773
SMO	p.Asp473His	c.1417G>C	NEGATIVE	COSM34198
SMO	p.Leu412Phe	c.1234C>T	NEGATIVE	COSM216037
SMO	p.Trp535Leu	c.1604G>T	NEGATIVE	COSM13146
FGFR3	p.Arg248Cys	c.742C>T	NO CALL	COSM714
FGFR3	p.Lys650Asn	c.1950G>T	NO CALL	COSM1428730
FGFR3	p.Lys650Gln	c.1948A>C	NO CALL	COSM726
FGFR3	p.Lys650Glu	c.1948A>G	NO CALL	COSM719
FGFR3	p.Ser249Cys	c.746C>G	NO CALL	COSM715

Analytical Gene Fusions (RNA) Not Detected

RNA QC Failed. Refer to Lab report for QC information.