List of Mutations Detectable with the OncoFOCUS™ Panel

GENE	NCBI Ref Seq	HGVS Nomenclature		
		CDS Mutation	AA Mutation	COSMIC ID
EGFR	NM_005228	c.323G>A	p.R108K	21683
		c.787A>C	p.T263P	21684
		c.866C>T	p.A289V	21687
		c.866C>A	p.A289D	21685
		c.1793G>T	p.G598V	21690
		c.2126A>T	p.E709V	12371
		c.2125_2127GAA>CAT	p.E709H	12428
		c.2125G>A	p.E709K	12988
		c.2126A>G	p.E709G	13009
		c.2125G>C	p.E709Q	116882
		c.2126A>C	p.E709A	13427
		c.2155G>A	p.G719S	6252
		c.2156G>A	p.G719D	18425
		c.2155G>T	p.G719C	6253
		c.2156G>C	p.G719A	6239
		c.2233_2247del15	p.K745_E749delKELRE	26038
		c.2237_2255>T	p.E746_S752>V	12384
		c.2237_2250>TCCCT	p.E746_A750>VP	28623
		c.2235_2246del(12) GGAATTAAGAGA	p.E746_E749del	NA
		c.2235_2248>AATTC	p.E746_A750>IP	13550
		c.2237_2252>T	p.E746_T751>V	12386
		c.2238_2249>TCC	p.E746_A750>DP	18428
		c.2237_2238AA>TT	p.E746V	51497
		c.2237_2258>TTCA	p.E746_P753>VQ	51524
		c.2236_2251>T	p.E746_T751>S	26513

For Research Use Only. Not for use in diagnostic procedures.

Agena Bioscience, Inc.
4755 Eastgate Mall
San Diego, CA 92121
Phone: +1.858.882.2800

Order Desk: +1.858.202.9301
Order Desk Fax: +1.858.202.9220
orderdesk@AgenaBio.com
Web: agenabioscience.com

US: +1.877.4.GENOME
EU: +49.40.899676.0
AP: +61.7.3088.1600
CN: +86.21.6427.0566

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GENE	NCBI Ref Seq	HGVS Nomenclature		
		CDS Mutation	AA Mutation	COSMIC ID
EGFR	NM_005228	c.2235_2251>AG	p.E746_T751>A	13549
		c.2235_2252del18	p.E746_T751delELREAT	24869
		c.2236_2248>CAAC	p.E746_A750>QP	13557
		c.2237_2257>TCT	p.E746_P753>VS	18427
		c.2235_2255>AAT	p.E746_S752>I	12385
		c.2237_2251>TGG	p.E746_T751>VA	53205
		c.2238_2255del18	p.E746_S752>D	6220
		c.2236_2256del21	p.E746_S752delELREATS	133189
		c.2236G>A	p.E746K	13184
		c.2236_2253>CTA	p.E746_T751>L	133187
		c.2235_2252>AAT	p.E746_T751>I	13551
		c.2235_2246del12	p.E746_E749delELRE	28517
		c.2235_2251>AATTC	p.E746_T751>IP	13552
		c.2237_2251>TTC	p.E746_T751>VP	18421
		c.2236_2253>CAA	p.E746_T751>Q	22999
		c.2237_2254del18	p.E746_S752>A	12367
		c.2236_2259>ATCTCG	p.E746_P753>IS	133191
		c.2235_2249del15	p.E746_A750delELREA	6223
		c.2236_2248>AGAC	p.E746_A750>RP	12413
		c.2236_2257>CTCT	p.E746_P753>LS	13200
		c.2239_2258>CA	p.L747_P753>Q	12387
		c.2239_2253>GCT	p.L747_T751>A	23572
		c.2240_2261>CGAC	p.L747_K754>ST	20883
		c.2238_2251>GC	p.L747_T751>P	22944
		c.2240_2254del15/c.2239_2253del15	p.L747_T751delLREAT	12369/6254
		c.2238_2255>GCAACA	p.L747_S752>QH	12421
		c.2239_2247del(9)TTAAGAGAA	p.L747_E749del	6218
		c.2240T>C	p.L747S	26704
		c.2240_2257del18	p.L747_P753>S	12370

GENE	NCBI Ref Seq	HGVS Nomenclature		
		CDS Mutation	AA Mutation	COSMIC ID
EGFR	NM_005228	c.2238_2248>GC	p.L747_A750>P	12422
		c.2238_2252>GCA	p.L747_T751>Q	12419
		c.2240_2251del12	p.L747_T751>S	6210
		c.2239_2262del24	p.L747_K754delLREATSPK	24970
		c.2239_2240TT>CC	p.L747P	24267
		c.2238_2256>GCAA	p.L747_S752>Q	26441
		c.2239_2247delTTAAGAGAA	p.L747_E749delLRE	6218
		c.2239_2253>CCAACG	p.L747_T751>PT	1235296
		c.2239_2256del18	p.L747_S752delLREATS	6255
		c.2239_2264>GCCAA	p.L747_A755>AN	85891
		c.2251_2277>TCT	p.T751_I759>S	22945
		c.2252C>T	p.T751I	13185
		c.2252_2276>A	p.T751_I759>N	96856
		c.2252_2275del24	p.T751_E758delTSPKANKE	133207
		c.2252_2277>GAGAAGCG	p.T751_I759>REA	22956
		c.2254T>C	p.S752P	29274
		c.2253_2276del24/c.2254_2277del24	p.S752_I759delSPKANKEI	13556/6256
		c.2255C>A	p.S752Y	13186
		c.2257_2277del21	p.P753_I759del	24269
		c.2257C>T	p.P753S	6268
		c.2258C>A	p.P753Q	NA
		c.2257_2277del21	p.P753_I759delPKANKEI	24269
		c.2276T>A	p.I759N	23633
		c.2281G>A	p.D761N	13188
		c.2281G>T	p.D761Y	21984
		c.2298_2299insGCCATA	p.M766_A767insAI	13559
		c.2302_2303insCGCTGGCCA	p.A767_S768insTLA	12425
		c.2303G>A	p.S768N	12989
		c.2303G>T	p.S768I	6241

GENE	NCBI Ref Seq	HGVS Nomenclature		
		CDS Mutation	AA Mutation	COSMIC ID
EGFR	NM_005228	c.2303G>C	p.S768T	291998
		c.2303_2305GCG>TCT	p.S768_V769>IL	85750
		c.2308_2309insGCAGCGTGG	p.V769_D770insGSV	18429
		c.2307_2308insTGCGTG	p.V769_D770insCV	12379
		c.2308_2309insGGGTCGTGG	p.V769_D770insGVV	18430
		c.2309_2310AC>CCAGCGTGGAT	p.V769_D770insASV	13558
		c.2308_2309insGTT	p.D770>GY	12427
		c.2311_2312insGCGTGGACA	p.D770_N771insSVD	13428
		c.2310_2311insGGC	p.D770_N771insG	13004
		c.2308_2315GACAACCC> CCAGCGTGGATAACCG	p.D770_P772>ASVDNR	NA
		c.2310_2311insGGGTTA	p.D770_N771insGL	48921
		c.2310_2311insGCACCGTGG	p.D770_N771insAPW	20886
		c.2310_2311insGGGTTT	p.D770_N771insGF	655155
		c.2308G>A	p.D770N	14068
		c.2309_2312ACAA>CTGGTGG	p.D770_N771>AGG	12737
		c.2311_2312ins(12)TGGCCACCCCCA	p.D770_N771insMATP (5′ Detection Only)	26719
		c.2310_2311insGGGGAC	p.D770_N771insGD	85795
		c.2311_2312AA>GGGTT	p.N771>GF	18431
		c.2311_2312insACCGGC	p.N771_P772insRH	166390
		c.2312_2315ACCC>GCGTGGACAACCG	p.N771_P772>SVDNR	13554
		c.2311_2312insGTC	p.N771>SH	24434
		c.2311_2312insCAC	p.N771>TH	22946
		c.2311A>GGTT	p.N771>GY	53189
		c.2319_2320insCAC	p.H773_V774insH	12377
		c.2319_2320insAACCCCCAC/ c.2310_2311insAACCCCCAC	p.H773_V774insNPH	12381/48920
		c.2319_2320insCAG	p.H773_V774insQ	131552

GENE	NCBI Ref Seq	HGVS Nomenclature		
		CDS Mutation	AA Mutation	COSMIC ID
EGFR	NM_005228	c.2319_2320insCCCCAC	p.H773_V774insPH	12380
		c.2320G>A	p.V774M	13006
		c.2316_2317insCACGTG	p.V774_C775insHV	133201
		c.2320G>T	p.V774L	25090
		c.2326C>T	p.R776C	6226
		c.2327G>A	p.R776H	22940
		c.2369C>T	p.T790M	6240
		c.2560A>G	p.T854A	28537
		c.2572C>A	p.L858M	12366
		c.2573T>G/c.2573_2574TG>GA/ c.2573_2574TG>GT/c.2572_2573CT>AG	p.L858R	6224/133630/ 12429/13553
		c.2572_2573CT>AA	p.L858K	24268
		c.2582T>A	p.L861Q	6212
		c.2582T>G	p.L861R	12374
		c.2125_2129delGAAAC	p.E709fs*1	24435
		c.2252_2275>G	p.T751fs*4	12410
		c.2317_2317C>AACCCCT	p.H773>NPY (3' Detection Only)	NA
BRAF	NM_004333	c.1405_1406GG>TC	p.G469S	458
		c.1406G>C	p.G469A	460
		c.1406G>A	p.G469E	461
		c.1405G>C	p.G469R	455
		c.1406G>T	p.G469V	459
		c.1781A>G	p.D594G	467
		c.1781A>T	p.D594V	466
		c.1789_1790CT>TC	p.L597S	1126
		c.1790T>A	p.L597Q	1125
		c.1789C>G	p.L597V	470
		c.1790T>G	p.L597R	471

GENE	NCBI Ref Seq	HGVS Nomenclature		
		CDS Mutation	AA Mutation	COSMIC ID
BRAF	NM_004333	c.1797_1798insACA	p.T599_V600insT	144982
		c.1797_1797A>TACTACG	p.T599_V600insTT	1128
		c.1799T>G	p.V600G	6137
		c.1798_1799GT>AA	p.V600K	473
		c.1798_1799GT>AG	p.V600R	474
		c.1798G>C/c.1798G>T	p.V600L	219798/33808
		c.1798G>A	p.V600M	1130
		c.1799T>A/c.1799_1800TG>AA	p.V600E (raremutation=c.1799_1800TG>AA)	476/475
		c.1798_1798G>TACA	p.V600>YM	1159850
		c.1799_1800TG>AT	p.V600D	477
		c.1801A>G	p.K601E	478
		c.1801_1803delAAA	p.K601del	30594
		c.1803A>T/c.1803A>C	p.K601N	6265/1132
KRAS	NM_004985	c.34_36GGT>TGG	p.G12W	36281
		c.34_36GGT>TGC	p.G12C	513
		c.35_36GT>AA	p.G12E	519
		c.34_35GG>TA	p.G12Y	25081
		c.35G>A	p.G12D	521
		c.34_35GG>TT	p.G12F	512
		c34-36GGT>AGA/c.34G>C	p.G12R	249888/518
		c.34_35GG>AA	p.G12N	13643
		c.36T>A	p.G12G	524
		c.34G>A	p.G12S	517
		c.35G>C	p.G12A	522
		c34-35GG>AC	p.G12T	NA
		c.35G>T	p.G12V	520

GENE	NCBI Ref Seq	HGVS Nomenclature		
		CDS Mutation	AA Mutation	COSMIC ID
KRAS	NM_004985	c.34_35GG>AT	p.G12I	34144
		c34-35GG>CC	p.G12P	NA
		c.36_37insGCG	p.G12_G13insA	303833
		c.34_35GG>CT	p.G12L	514
		c.38G>C	p.G13A	533
		c.38G>A	p.G13D	532
		c.37G>C	p.G13R	529
		c.37_38GG>AA	p.G13N	53283
		c.37G>A	p.G13S	528
		c.38G>T	p.G13V	534
		c.37_38GG>AT	p.G13I	525
		c.39_40insGGC	p.G13_V14insG	219781
		c.36_37TG>AT/c.37G>T	p.G13C	87281/527
		c.175G>A	p.A59T	546
		c.181C>A	p.Q61K	549
		c.181C>G	p.Q61E	550
		c.182A>G	p.Q61R	552
		c.183A>C	p.Q61H	554
		c.182A>C	p.Q61P	551
		c.182A>T	p.Q61L	553
		c.437C>G	p.A146G	N/A
		c.436G>A	p.A146T	19404
		c.437C>T	p.A146V	19900
		c.436G>C	p.A146P	19905
		c.176C>G	p.A59G	28518
		c.176C>A	p.A59E	547
		c.349A>G	p.K117E	N/A
		c.351A>T	p.K117N	28519
		c.350A>G	p.K117R	4696722

GENE	NCBI Ref Seq	HGVS Nomenclature		
		CDS Mutation	AA Mutation	COSMIC ID
NRAS	NM_002524	c.34G>T	p.G12C	562
		c.34_35GG>TA	p.G12Y	560
		c.34_35GG>AA	p.G12N	12723
		c.35G>C	p.G12A	565
		c.35_36GT>AG	p.G12E	144577
		c35G>T	p.G12V	566
		c.34_35GG>CC	p.G12P	559
		c.38G>C	p.G13A	575
		c.38G>A	p.G13D	573
		c.37G>C	p.G13R	569
		c.38G>T/c.38_39GT>TC	p.G13V	574/572
		c.37_38GG>AA	p.G13N	24668
		c.37_38GG>TA	p.G13Y	568
		c.181C>A	p.Q61K	580
		c.182_183AA>GG	p.Q61R	33693
		c.183A>C	p.Q61H	586
		c.182A>C	p.Q61P	582
		c.183A>G	p.Q61Q	587
		c.181C>G	p.Q61E	581
		c.182_183AA>TG	p.Q61L	30646
		c.176C>G	p.A59G	5878737
		c.175G>A	p.A59T	578
		c.349A>G	p.K117E	N/A
		c.351G>T/C	p.K117N	N/A
		c.350A>G	p.K117R	N/A
		c.436G>A	p.A146T	27174
		c.436G>C	p.A146P	N/A
		c.436G>T	p.A146S	N/A
		c.437C>T	p.A146V	4170228
		c.437C>G	p.A146G	N/A

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		CDS Mutation	AA Mutation	COSMIC ID
KIT	NM_000222	c.1669T>C	p.W557R	1219
		c.1669T>A	p.V559A	1216
		c.1676T>C	p.V559D	1255
		c.1676T>A	p.L576P	1252
		c.1727T>C	p.K642E	1290
		c.1924A>G	p.D816H	1304
		c.2446G>C	p.W557G	1311
		c.1676T>G	p.V559G	1253
		c.1924A>C	p.K642Q	96871
		c.2446G>T	p.D816Y	1310