



**Supp. Figure S1.** Representative Agarose Gel of PCR Products Amplified By Multiplex PCR Setting In A 96-Well PCR Plate. Only two sets of primer pairs were allowed in a single reaction.

**Supp. Table S1. 148 Target Genes on Hyper-IgM/CVID Chip**

Locus	OMIM#	Gene Symbol	Pathways Involved	Refseq#	Chip Design	Total bases on Chip	Coding Exon Coverage
11q13	164014	<b>RELA</b>	NFKB related	NM_021975.3	Repeats Removed	1663	93%
9q34	601895	<b>TRAF2</b>	NFKB related	NM_021138.3	Exon 9, 10 removed	1234	76%
19q13.1-q13.2	109560	<b>BCL3</b>	NFKB related	NM_005178.4	Repeats Removed	1310	90%
6q23	191163	<b>TNFAIP3</b>	NFKB related	NM_006290.2		2469	100%
4p16.3	610669	<b>TNIP2</b>	NFKB related	NM_024309.3		1362	100%
11q24.2	606252	<b>TIRAP</b>	NFKB related	NM_148910.2	Repeats Removed	677	92%
1p22	603517	<b>BCL10</b>	NFKB related	NM_003921.3	Repeats Removed	717	97%
19q13.32	604758	<b>RELB</b>	NFKB related	NM_006509.2	Exon 3-6 removed	1096	59%
Xq28	300248	<b>IKBKG</b>	NFKB related	NM_003639.3	Repeats Removed	1346	98%
14q13	164008	<b>NFKBIA</b>	NFKB related	NM_020529.2	Repeats Removed	991	97%
2p13-p12	164910	<b>REL</b>	NFKB related	NM_002908.2	Exon 9 removed	1856	93%
12q12	606883	<b>IRAK4</b>	NFKB related	NM_016123.3		1515	100%
4q24	164011	<b>NFKB1</b>	NFKB related	NM_003998.3	Exon 6-8 removed	2701	85%
17p11.2	604907	<b>TNFRSF13B</b>	NFKB related	NM_012452.2	Repeats Removed	922	98%
14q11.2	605817	<b>RIPK3</b>	NFKB related	NM_006871.3	Repeats Removed	1653	99%
19p13.3	604520	<b>TNFSF14</b>	NFKB related	NM_003807.2		771	100%
19p13.3	607601	<b>TICAM1</b>	NFKB related	NM_182919.1	Repeats Removed	2117	98%
19p13.3-p13.2	603014	<b>MAP2K7</b>	NFKB related	NM_145185.2	Exon 6-8 removed	824	59%
17q24.3	601254	<b>MAP2K6</b>	NFKB related	NM_002758.3	Exon 4-10 removed	311	27%
14q32.32	164730	<b>AKT1</b>	NFKB related	NM_001014432.1	Repeats Removed	1570	98%
1q32	602356	<b>TRAF5</b>	NFKB related	NM_004619.3		1794	100%
11p12	602355	<b>TRAF6</b>	NFKB related	NM_145803.1		1641	100%
8q24.3	611966	<b>TRAPPC9</b>	NFKB related	NM_031466.3	Repeats Removed	3963	99%
1q32.1	605048	<b>IKBKE</b>	NFKB related	NM_014002.2	Repeats Removed	2370	99%
6q22.33	602448	<b>MAP3K5</b>	NFKB related	NM_005923.3	Repeats Removed	4434	99%
20q13.2	602995	<b>UBE2V1</b>	NFKB related	NM_021988.3		464	100%
6q21	607043	<b>TRAF3IP2</b>	NFKB related	NM_147200.1		1826	100%
17q11.2	602315	<b>MAP2K3</b>	NFKB related	NM_145109.1	Repeats Removed	1171	99%
19p13.3	601263	<b>MAP2K2</b>	NFKB related	NM_030662.2	Exon 2-7 removed	436	33%

<b>Locus</b>	<b>OMIM#</b>	<b>Gene Symbol</b>	<b>Pathways Involved</b>	<b>Refseq#</b>	<b>Chip Design</b>	<b>Total bases on Chip</b>	<b>Coding Exon Coverage</b>
15q22.1-q22.33	176872	<b>MAP2K1</b>	NFKB related	NM_002755.2		1314	100%
6q16.1-q16.3	602614	<b>MAP3K7</b>	NFKB related	NM_145331.1	Repeats Removed	1988	98%
17q23.3	602539	<b>MAP3K3</b>	NFKB related	NM_203351.1		2178	100%
5q11.2	600982	<b>MAP3K1</b>	NFKB related	NM_005921.1	Repeats Removed	4638	97%
17p11.2	601335	<b>MAP2K4</b>	NFKB related	NM_003010.2	Repeats Removed	1294	97%
16p13.3	605431	<b>MAPK8IP3</b>	NFKB related	NM_015133.3	Repeats Removed	4300	98%
8q21	603455	<b>RIPK2</b>	NFKB related	NM_003821.5		1750	100%
17p13	602695	<b>TNFSF12</b>	NFKB related	NM_003809.2	Repeats Removed	808	97%
17p13.1	604472	<b>TNFSF13</b>	NFKB related	NM_003808.2		825	100%
16q12.1	605018	<b>CYLD</b>	NFKB related	NM_015247.1		3072	100%
12p13.3	607127	<b>ERC1</b>	NFKB related	NM_178037.1	Repeats Removed	3163	99%
10p11.23	191195	<b>MAP3K8</b>	NFKB related	NM_005204.2		1488	100%
18q21	604860	<b>MALT1</b>	NFKB related	NM_006785.2	Repeats Removed	2660	99%
Xq28	300283	<b>IRAK1</b>	NFKB related	NM_001569.3	Repeats Removed	2204	98%
10q24-q25	600664	<b>CHUK</b>	NFKB related	NM_001278.3	Repeats Removed	2453	99%
7p22	607210	<b>CARD11</b>	NFKB related	NM_032415.2	Exon 4-8 removed	2684	72%
2q24-q31	603893	<b>TANK</b>	NFKB related	NM_004180.2	Repeats Removed	1332	98%
12q14.1	604834	<b>TBK1</b>	NFKB related	NM_013254.2	Repeats Removed	2393	98%
22q13.1	607209	<b>CARD10</b>	NFKB related	NM_014550.3	Repeats Removed	3213	97%
19q13.33	609051	<b>CARD8</b>	NFKB related	NM_014959.1		1392	100%
19p13.2	603934	<b>CARM1</b>	NFKB related	NM_199141.1	Repeats Removed	1920	95%
8p11.2	603258	<b>IKBKB</b>	NFKB related	NM_001556.1	Repeats Removed	2502	99%
3p22	602170	<b>MYD88</b>	NFKB related	NM_002468.3	Repeats Removed	930	98%
19q13.1	604495	<b>NFKB1B</b>	NFKB related	NM_002503.3		1143	100%
6p21.1	604548	<b>NFKB1E</b>	NFKB related	NM_004556.2	Repeats Removed	1481	94%
Xq24	300766	<b>NKAP</b>	NFKB related	NM_024528.1	Repeats Removed	1313	97%
Xq24	300440	<b>NKRF</b>	NFKB related	NM_017544.2		2097	100%
18q21.1	602932	<b>SMAD7</b>	NFKB related	NM_005904.2	Repeats Removed	1191	90%
5q23.1	608321	<b>TICAM2</b>	NFKB related	NM_021649.3		720	100%
4p14	606270	<b>TLR10</b>	NFKB related	NM_030956.2	Repeats Removed	2423	99%
3p21.3	605474	<b>TLR9</b>	NFKB related	NM_017442.2		3123	100%
20p13-p12.2	607898	<b>TRIB3</b>	NFKB related	NM_021158.3	Repeats Removed	1091	98%

Locus	OMIM#	Gene Symbol	Pathways Involved	Refseq#	Chip Design	Total bases on Chip	Coding Exon Coverage
6p21.1		<i>UNC5CL</i>	NFKB related	NM_173561.1		1653	100%
1p34	601241	<i>HDAC1</i>	NFKB related	NM_004964.2		1617	100%
15q24.3	601056	<i>BCL2A1</i>	NFKB related	NM_004049.2		552	100%
3p24.1	609916	<i>AZI2</i>	NFKB related	NM_022461.3		1263	100%
14q32.32	601896	<i>TRAF3</i>	NFKB related	NM_145725.1		1827	100%
3p24	126431	<i>TOP2B</i>	Class switch/DNA repair	NM_001068.2	Repeats Removed	5131	97%
Xp11.22	314310	<i>TFE3</i>	Class switch/DNA repair	NM_006521.3	Exon 6-10 removed	945	51%
6p21	600744	<i>TFEB</i>	Class switch/DNA repair	NM_007162.1	Repeats Removed	1473	96%
13q33-q34	601837	<i>LIG4</i>	Class switch/DNA repair	NM_206937.1		2748	100%
Xq26	300386	<i>CD40LG</i>	Class switch/DNA repair	NM_000074.2		846	100%
12p13	605257	<i>AICDA</i>	Class switch/DNA repair	NM_020661.1	Repeats Removed	651	99%
1p31	602105	<i>MSH4</i>	Class switch/DNA repair	NM_002440.2	Repeats Removed	3015	99%
12q22	603679	<i>UBE2N</i>	Class switch/DNA repair	NM_003348.3		507	100%
12q23-q24.1	191525	<i>UNG</i>	Class switch/DNA repair	NM_080911.1		1026	100%
20q12-q13.2	109535	<i>CD40</i>	Class switch/DNA repair	NM_001250.4	Repeats Removed	934	99%
11q21	600814	<i>MRE11A</i>	Class switch/DNA repair	NM_005591.3	Repeats Removed	2323	99%
17q11.2-q12	600940	<i>LIG3</i>	Class switch/DNA repair	NM_013975.2	Repeats Removed	3237	99%
11p15	604762	<i>SWAP70</i>	Class switch/DNA repair	NM_015055.2	Repeats Removed	1818	96%
Xq21.33-q22	300300	<i>BTK</i>	Class switch/DNA repair	NM_000061.1	Repeats Removed	2142	98%
5q31	604040	<i>RAD50</i>	Class switch/DNA repair	NM_005732.2	Repeats Removed	4171	98%
14q11.2-q12	107748	<i>APEX1</i>	Class switch/DNA repair	NM_001641.2		1005	100%
11q23.3	601613	<i>CXCR5</i>	Class switch/DNA repair	NM_001716.2		1143	100%
10p13	605988	<i>DCLRE1C</i>	Class switch/DNA repair	NM_001033855.1		2247	100%
2p25	600386	<i>ID2</i>	Class switch/DNA repair	NM_002166.4		429	100%
3q21	600686	<i>KPNA1</i>	Class switch/DNA repair	NM_002264.2	Repeats Removed	1752	99%
19q13.2-q13.3	126391	<i>LIG1</i>	Class switch/DNA repair	NM_000234.1	Repeats Removed	3022	98%
2q35	611290	<i>NHEJ1</i>	Class switch/DNA repair	NM_024782.1		984	100%
19q13.3-q13.4	605610	<i>PNKP</i>	Class switch/DNA repair	NM_007254.2		1758	100%
11p13	179615	<i>RAG1</i>	Class switch/DNA repair	NM_000448.1		3144	100%
11p13	179616	<i>RAG2</i>	Class switch/DNA repair	NM_000536.2		1596	100%
9q33	603875	<i>TNFSF8</i>	Class switch/DNA repair	NM_001244.2		753	100%
15q15-q21	605230	<i>TP53BP1</i>	Class switch/DNA repair	NM_005657.1	Repeats Removed	6181	99%

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5q13-q14	194363	<i>XRCC4</i>	Class switch/DNA repair	NM_022406.1		1095	100%
22q13.2-q13.31	152690	<i>XRCC6</i>	Class switch/DNA repair	NM_001469.3		1967	100%
8q21	602667	<i>NBN</i>	Class switch/DNA repair	NM_002485.4	Repeats Removed	2412	98%
4q31	163906	<i>HMGB2</i>	Class switch/DNA repair	NM_002129.3		549	100%
20q12-q13.11	608958	<i>ADA</i>	Class switch/DNA repair	NM_000022.2		1236	100%
12q24	251170	<i>MVK</i>	Class switch/DNA repair	NM_000431.2		1311	100%
17q21.31	102582	<i>STAT3</i>	Immunodeficiency	NM_139276.2		2589	100%
Xp11.4-p11.21	300392	<i>WAS</i>	Immunodeficiency	NM_000377.2	Repeats Removed	1579	96%
9p12	609631	<i>DDX58</i>	Immunodeficiency	NM_014314.3		2989	100%
22q12	194355	<i>XBPI</i>	Immunodeficiency	NM_005080.2	Repeats Removed	824	97%
2q33	604558	<i>ICOS</i>	Immunodeficiency	NM_012092.2		660	100%
6q21-q22.1	603423	<i>PRDM1</i>	Immunodeficiency	NM_001198.2		2442	100%
19q13.2	112205	<i>CD79A</i>	Immunodeficiency	NM_001783.3		741	100%
9q34.11	608360	<i>LRRC8A</i>	Immunodeficiency	NM_019594.2		2457	100%
11p11.2	165170	<i>SPI1</i>	Immunodeficiency	NM_001080547.1	Repeats Removed	833	95%
14q13.1	164050	<i>PNP</i>	Immunodeficiency	NM_000270.3		942	100%
22q13.1-q13.31	606269	<i>TNFRSF13C</i>	B-cell development	NM_052945.2	Repeats Removed	565	96%
16p13.1	109545	<i>TNFRSF17</i>	B-cell development	NM_001192.2		591	100%
13q32-q34	603969	<i>TNFSF13B</i>	B-cell development	NM_006573.3		930	100%
9p13	167414	<i>PAX5</i>	B-cell development	NM_016734.1		1296	100%
10q23.2-q23.33	604515	<i>BLNK</i>	B-cell development	NM_013314.2	Repeats Removed	1547	98%
19p13	602840	<i>CD70</i>	B-cell development	NM_001252.3		618	100%
3p14.1	605515	<i>FOXP1</i>	B-cell development	NM_032682.4	Repeats Removed	2116	95%
11q12	112210	<i>MS4A1</i>	B-cell development	NM_152866.2	Repeats Removed	944	98%
1q22-q23	603492	<i>SLAMF1</i>	B-cell development	NM_003037.1	Repeats Removed	1067	98%
19p13.3	147141	<i>TCF3</i>	B-cell development	NM_003200.1	Repeats Removed	2133	98%
22q13.2	608740	<i>NFAM1</i>	B-cell development	NM_145912.5	Repeats Removed	863	98%
1q31-q32	151460	<i>PTPRC</i>	Others	NM_002838.3		4286	100%
8q13.3	605190	<i>TRAM1</i>	Others	NM_014294.5		1257	100%
16q12	602212	<i>SIAH1</i>	Others	NM_001006610.1		966	100%
11q13	608204	<i>UNC93B1</i>	Others	NM_030930.2	Repeats Removed	1871	97%
4q34	600636	<i>CASP3</i>	Others	NM_004346.3	Repeats Removed	882	97%

<b>Locus</b>	<b>OMIM#</b>	<b>Gene Symbol</b>	<b>Pathways Involved</b>	<b>Refseq#</b>	<b>Chip Design</b>	<b>Total bases on Chip</b>	<b>Coding Exon Coverage</b>
2q33-q34	601763	<i>CASP8</i>	Others	NM_033355.2		1536	100%
1p36.33	610770	<i>NOC2L</i>	Others	NM_015658.1	Repeats Removed	2407	97%
16p13	600743	<i>TFAP4</i>	Others	NM_003223.1	Repeats Removed	995	90%
5q31.1		<i>DDX46</i>	Others	NM_014829.2	Exon 10-13 removed	2843	84%
Xp11.23	300272	<i>HDAC6</i>	Others	NM_006044.2	Repeats Removed	3690	93%
20q11.22-q11.23	606409	<i>ITCH</i>	Others	NM_031483.3	Repeats Removed	2832	99%
15q15.3	610979	<i>PPP5K1</i>	Others	NM_014659.3	Exon 1-25 removed	656	14%
7p15.3-p15.1	138079	<i>GCK</i>	Others	NM_000162.2		1518	100%
4q32.3-q33		<i>SH3RF1</i>	Others	NM_020870.3	Repeats Removed	2692	96%
Xq25	300079	<i>XIAP</i>	Others	NM_001167.2		1566	100%
11p15.5	605047	<i>IRF7</i>	Others	NM_004031.2	Repeats Removed	1616	97%
7q32	607218	<i>IRF5</i>	Others	NM_002200.3	Repeats Removed	1440	89%
6p25-p23	601900	<i>IRF4</i>	Others	NM_002460.1		1452	100%
5q31.1	147575	<i>IRF1</i>	Others	NM_002198.2	Repeats Removed	1063	98%
14q32.33	140571	<i>HSP90AA1</i>	Others	NM_001017963.1	Repeats Removed	2582	95%
14q11.2	147574	<i>IRF9</i>	Others	NM_006084.4	Repeats Removed	1226	96%
16q22.1	605812	<i>DDX19B</i>	Others	NM_007242.4		1584	100%
17q23.3	613369	<i>DDX42</i>	Others	NM_007372.2		3021	100%
2q36.3	600862	<i>AGFG1</i>	Others	NM_004504.3	Repeats Removed	1824	99%
19q13.3-q13.4	603734	<i>IRF3</i>	Others	NM_001571.3		1368	100%
19q13.32	607463	<i>PPP1R13L</i>	Others	NM_006663.2	Repeats Removed	2508	95%
1q21.3	608972	<i>CRTC2</i>	Others	NM_181715.1	Repeats Removed	2211	98%
14q21		<i>PELI2</i>	Others	NM_021255.2		1335	100%

**Supp. Table S2. Conditions for PCR Set-Up and Thermo-Cycling**

<b>Regular PCR Set-up:</b>		<b>PCR Set-up for GC-rich Amplicons:</b>	
Reagents	Vol ( $\mu$ l)	Reagents	Vol ( $\mu$ l)
dNTPs (10 $\mu$ M)	1.12	dNTPs (10 $\mu$ M)	1.12
10xbuffer	0.7	2xGC I Buffer	3.5
Takara LA Polymerase	0.065	Takara LA Polymerase	0.07
primers (3 $\mu$ M each), air-dried before use		primers (3 $\mu$ M each), air-dried before use	
Genomic DNA (20 $\mu$ g/ml)	0.7	Genomic DNA (20 $\mu$ g/ml)	0.7
H <sub>2</sub> O	4.4	H <sub>2</sub> O	1.6
<b>Total</b>	<b>7.0</b>	<b>Total</b>	<b>7.0</b>

**PCR Condition I:**

Amplicons &lt;2kb

Cycle	Temperature	Cycling Time
1	94°C	2 min
10	98°C	15 sec
	58°C	15 sec
	70°C	2 min
30	98°C	15 sec
	62°C	15 sec
	70°C	2.5 min
1	72°C	10 min
1	4°C	constant

**PCR condition II:**Amplicons  $\geq$ 2kb or GC-rich amplicons

Cycle	Temperature	Cycling Time
1	94°C	2 min
10	98°C	15 sec
	58°C	15 sec
	70°C	6 min
30	98°C	15 sec
	62°C	15 sec
	70°C	6.5 min
1	72°C	15 min
1	4°C	Constant

Note: For PCR reactions that initially failed, 30 to 40  $\mu$ g/ml template DNA was used.

**Supp. Table S3. All PCR Primer Information and Primer Plate Set-Up**

Note: For primer plate well position, the first number is the plate number; the last two numbers are the well position.

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_015247.1	CYLD#2 to CYLD#3	TTATCCATGTAACCAAA CACCACCTGTTC	GGGTTTACTATCACTTG GTTATTCTTG	461	1T01	Regular PCR Condition I
NM_002838.3	PTPRC#13	CTTGAAGTTTAAAGCA AATCAGCA	CATTTACGGAAGAGAT ATTATTTAAGCA	337	1T02	Regular PCR Condition I
NM_002908.2	REL#3	TGATTTTTGCAATATTC CTTGTG	GAAACAGAAATCAACA CCCAA	208	1T03	Regular PCR Condition I
NM_003998.3	NFKB1#0	TGAATCCATGGTGATA GAATTTT	TGCTAACTTACTAATGT TGCCTTG	205	1T04	Regular PCR Condition I
NM_002838.3	PTPRC#10	AGAATGCTTTATCCATG TCTTATTTT	TTCAAATTCTTGATTTC TCTTTTCTG	231	1T05	Regular PCR Condition I
NM_001033855.1	DCLRE1C#2	TGGCTCATTTTGGATTG TACTG	TGAGGCAAAGTTTTTGT CAATC	214	1T06	Regular PCR Condition I
NM_002264.2	KPNA1#8	TTTGGTCTTGGAAGGA AATGAA	TGTAACAGAGTATCAA GTTTCCCTAAT	266	1T07	Regular PCR Condition I
NM_178037.1	ERC1#16	GAAATTCCTCTTGCTA CATTATGCTT	GAAATGAGATGTGAGA GTTACTGTGT	263	1T08	Regular PCR Condition I
NM_005904.2	SMAD7#2	GGTTTGTCTTTCATGCT GTTTAGA	TCCTCCAGTCTTTAGCA ATTTCA	238	1T09	Regular PCR Condition I
NM_001033855.1	DCLRE1C#11	CCTAACAACCTGTTTCA TCGTAGA	TTGTAAACATTCAGGC AAACTCTC	233	1T10	Regular PCR Condition I
NM_005904.2	SMAD7#1	GACAAACAGTTGGGCT AAAAGAAT	ACTTCCAACAGAGGAA ACCTAGAAC	290	1T11	Regular PCR Condition I
NM_001244.2	TNFSF8#1	ATTCAGGTGGAGGATG AATTGTAA	TTGGGTCATGTCATAGA GTTGTTT	274	1T12	Regular PCR Condition I
NM_003037.1	SLAMF1#4	GTATGCAAAGGACAGT AAAGACCA	CCAGGAATACTCTAGG AAACATGAC	219	1T13	Regular PCR Condition I
NM_002758.3	MAP2K6#2 to MAP2K6#6	ATCCTCAGTGGTGTGTG ATTTGGGAAG	AACTTTGCATACCACTT CCCTTTA	273	1T14	Regular PCR Condition I
NM_006509.2	RELB#6	CCCAGTAAGGCTTTGGT	CTGGCTACCCCTCCAAG	239	1T15	Regular PCR



Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_002264.2	KPNA1#0	GAC ATTTGAGGCTACAGTG AGCTATGA	TT AGTGTTGATTTTACAGG GGAGAAG	503	1T16	Condition I Regular PCR
NM_022406.1	XRCC4#6	CCAATTTGAAACAGGA TTTAACTG	TGTGCCAGTGTTCATCAT CAAA	423	1T17	Condition I Regular PCR
NM_006573.3	TNFSF13B#3 to TNFSF13B#4	CAAAGAATCCAGTGCA GTAATGTG	TTTCGTCAAAGTCTCTT CATTTC	585	1T18	Condition I Regular PCR
NM_002264.2	KPNA1#1	AAGACTATGGAGAAAT CTGAAATGG	ATTTAATGAACCATGA GATTAAGCA	428	1T19	Condition I Regular PCR
NM_022406.1	XRCC4#3 to XRCC4#4	CCTTGAAATCTTCTTGA TTATTAGGC	TTTCATAGAATAAGGTC TTTCAACA	1569	1T20	Condition I Regular PCR
NM_020870.3	SH3RF1#0	ATTGCACTTCATAAATC CTTCTGC	TTCCACCAACGAGTAA ATTCTGTGCTGT	1276	1T21	Condition I Regular PCR
NM_031466.3	TRAPPC9#6	ATGATTCAGTGATCTCC CACCAG	CAAACAGGGTTACAAA TGGCAAG	701	1T22	Condition I Regular PCR
NM_006509.2	RELB#1	CTTCCTTGGGATATTCT CTGGTC	TAACAGTCCAAGAGGT AAGAAAACCTA	298	1T23	Condition I Regular PCR
NM_031466.3	TRAPPC9#4	GAAAGTGGGAAGGCAG AGAGGT	ACCCACCAATCAATCA TCAAGC	453	1T24	Condition I Regular PCR
NM_001278.3	CHUK#0	GAGTACCTGTTTGTTC CCCATC	CTATGCCAGTACCTCA AATACAAC	507	1T25	Condition I Regular PCR
NM_199141.1	CARM1#6 to CARM1#7	ATAGGACATAAAGATG AGCCACCA	CTTAGCCTCACCTAATA ATGTTCCA	838	1T26	Condition I Regular PCR
NM_003998.3	NFKB1#22	AAGCCAGTGGGCAAGA GTT	ATGCAGAAAAGGGGGA AAAT	844	1T27	Condition I Regular PCR
NM_002440.2	MSH4#7	AGCATTAAATTTTGAG GTGAGATTG	ATAATGAAGGACTTTC CCAAAACAT	402	1T28	Condition I Regular PCR
NM_001033855.1	DCLRE1C#0	AAGAATGATTTCTAAG CGCAGTTC	CAGCAAAGCTACCAAG AGAAACTA	793	1T29	Condition I Regular PCR
NM_001783.3	CD79A#0	GAGAGGTCAAGCTCAG AACCATCAC	GGCACAGATACGATTT CTATAGGC	599	1T30	Condition I Regular PCR
NM_014550.3	CARD10#2	ATGTTATCTCCTGGATT TTACTTGC	ACAGTCATAACCCAAT GAAGTAGGTA	547	1T31	Condition I Regular PCR
NM_002838.3	PTPRC#2	TGATTCACATATTTATT	CCTGCAATTTCTGCACT	384	1T32	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_013314.2	BLNK#2	TTGTCCTTCTC CCAACCAATCAACATTT ATCTTCC	TGAATA GATAGCGTATTTCCCTT TCCATAA	471	1T33	Condition I Regular PCR
NM_013254.2	TBK1#6	ACTACCAGAAATGTAA TGGGTCTTG	CAAATAACCATGCTAA CAATGAAGAC	953	1T34	Condition I Regular PCR
NM_016734.1	PAX5#2	TTTGATTCACTAGCC ATATTTCA	TGGAAAGAAGAGAAGG GTAACAGA	551	1T35	Condition I Regular PCR
NM_002485.4	NBN#5 to NBN#6	TGTCAGATAGTCACTCC GTTTACAA	TTACATTGTTAGGTGAA AAGCAACA	1094	1T36	Condition I Regular PCR
NM_031483.3	ITCH#14	ATGAACACCTTTCTGTG TCATGGGAGAT	TAAGCTCCAATATGAA GAAAGCAGA	767	1T37	Condition I Regular PCR
NM_032682.4	FOXP1#0	CTACTGAACTTGAATT GGGAATG	TAGAGGGCTGATGGTT TATGAGAT	570	1T38	Condition I Regular PCR
NM_002838.3	PTPRC#0	CAGCTAGCAAGTGGTT TGTTCTTA	TGTCTATTTCAAACATT CCTCCAA	346	1T39	Condition I Regular PCR
NM_016734.1	PAX5#1	ATAATAAGTTGTGCC ATTTTCGTT	CTTTAGAACAATTCACC AGGCTTT	749	1T40	Condition I Regular PCR
NM_013254.2	TBK1#5	TTGGATAATATGGGTA AGAGGGATTA	GACATTAACAAGACC CAAATGAAC	1000	1T41	Condition I Regular PCR
NM_002503.3	NFKBIB#1 to NFKBIB#2	AATTTGCTGATGAAACT CTGACCT	TACATATCCAATTCTCA ATCATCTGG	865	1T42	Condition I Regular PCR
NM_203351.1	MAP3K3#16	CCTTATTTCAAGAAGTA CCCAGGTG	GAATGAAAATAAACA CTTCATACCC	822	1T43	Condition I Regular PCR
NM_031466.3	TRAPPC9#21	TTGAGTCATAGCTCTAG CCACCACACC	ACAGGTGAGCTTGTCT AAGTTCCT	638	1T44	Condition I Regular PCR
NM_014002.2	IKBKE#9 to IKBKE#10	GTGTGAGCTGGAAATA ATGAAAGAT	GGGAGAAGAGGTGCAT TGTTGGAAGTAT	834	1T45	Condition I Regular PCR
NM_147200.1	TRAF3IP2#3	AACATCAACCATCTGT GTCACCTGTCAT	CCATCACAAAGTATAA GACCTCACAA	898	1T46	Condition I Regular PCR
NM_001250.4	CD40#5	AGTGAACTCATCATCT CTCCATTCCAG	TTTTCCCATCCAGTGTT CCTGT	509	1T47	Condition I Regular PCR
NM_024528.1	NKAP#4	TTCATAGTACCTCCCTA CAGTTCGT	CTGAGATTGGGTCCAA AATAAATG	708	1T48	Condition I Regular PCR
NM_005657.1	TP53BP1#0 to	TTATTTAGGTTTAGACT	GATGAGGCAACAGGTA	946	1T49	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
	TP53BP1#2	GCGTGAGC	CAGATAAA			Condition I
NM_001252.3	CD70#2	GTTTCCTAAACCTCCA TCCTCTC	ACTTCCTCTATTCTTCA AACATCCCTA	811	1T50	Regular PCR Condition I
NM_006044.2	HDAC6#18 to HDAC6#20	AGGCTGTCCGATCTTAG CAC	ACACACAGCCAAGACA GTCACTCACAC	1368	1T51	Regular PCR Condition I
NM_001278.3	CHUK#2 to CHUK#3	CTGTTTCATCCACCCACA ATTAAGTAGCAT	GCCAAAGGGACATTAC ATTACAA	1010	1T52	Regular PCR Condition I
NM_031483.3	ITCH#12 to ITCH#13	GGGAATTGATGTTGGG ATAGACAGCA	CTAAGGTGGCTGGCAA TGAGATCG	1933	1T53	Regular PCR Condition I
NM_031483.3	ITCH#15 to ITCH#17	GAAACAGATGTGAGTT TGAACAGAAG	AATTATCAATGTGCTGT AGTCAAACA	1794	1T54	Regular PCR Condition I
NM_145331.1	MAP3K7#0	TGTAACTTCTTGATGGT CAAATCCA	GTTTATCACCGGAATAT CAAATCCA	1602	1T55	Regular PCR Condition I
NM_021975.3	RELA#5 to RELA#7	CTGATAGCACCTATATC CCCCTT	ACATGCAGTCTTGGCCT CTCTCTC	1640	1T56	Regular PCR Condition I
NM_015247.1	CYLD#6 to CYLD#7	TGTTGGAGATAATAAC TTTGTGATGCCTATGA	AGAATTAGAGTCATTC CAGGTTGTT	1953	1T57	Regular PCR Condition I
NM_006663.2	PPP1R13L#7 to PPP1R13L#9	ATAAAATGCTCAAATT CCAAACATC	GAAGATGTGAAAGGTG AGCAGAC	1316	1T58	Regular PCR Condition I
NM_019594.2	LRRC8A#1	TGTTTTGCTTTCATAAA TTGTTGTT	AGGAGACCTGATTAT CCAAATACT	995	1T59	Regular PCR Condition I
NM_000377.2	WAS#7 to WAS#10	GCACCACAAACTATGG AGCCCTTCTAA	ATTGTCAAAAACGAGG CTGACACAAGA	1716	1T60	Regular PCR Condition I
NM_181715.1	CRTC2#11 to CRTC2#13	CTTGGGGTATACACTG AGCAGTAAG	TCATTCATGCTAGAAA GAGGATCTG	1447	1T61	Regular PCR Condition I
NM_015247.1	CYLD#10 to CYLD#11	CTGGAGTTGTATAAGA AATGTGTTGG	AAGTAAACTATGGTAC TGTGGCAAGG	1588	1T62	Regular PCR Condition I
NM_005591.3	MRE11A#15 to MRE11A#16	GATTAGGAGGCTTTCCT TCAATACAT	GCATCAACTCTATAAA CTAGCCCTTG	1917	1T63	Regular PCR Condition I
NM_004619.3	TRAF5#3 to TRAF5#5	AACAAACTTGGTGTAC TTCCCTCTTACC	CCCACAACTGCAAGAG CCAACCTCTTA	1753	1T64	Regular PCR Condition I
NM_007242.4	DDX19B#5 to DDX19B#6	CTGCTACATAATCCAA GGTCTCCTA	ACCAAGTACAACAACC AAACGCAACGTA	1620	1T65	Regular PCR Condition I
NM_000061.1	BTK#6 to BTK#7	ATGGTCTTTATATGTGT	TCTTTGAGTGTGATTCT	1251	1T66	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_002503.3	NFKBIB#3 to NFKBIB#5	GCAAGGCTGAGA GTACCTCTTTGCCATAC CCAAGAAT	TCTGGATTTGAG TCTGAGTGAATAAAGC ACAAAGAAA	1934	1T67	Condition I Regular PCR
NM_013254.2	TBK1#10 to TBK1#11	AATACATCAGGATCAC AGAAATGCTT	TACTACCATGCCTAGCT CCTAAGAAA	1907	1T68	Condition I Regular PCR
NM_005178.4	BCL3#1	GATTGGAGATTGAGGT CAGAAGAT	AGTAAGTTAATCAATG AACTGTCTTTCTTG	1015	1T69	Condition I Regular PCR
NM_002166.4	ID2#0 to ID2#1	GCGCTTGGAAATTAGAA TTAAGAATG	AAAGCTACAAGCTCCT TCATGTCTA	1466	1T70	Condition I Regular PCR
NM_000536.2	RAG2	CGATGATTATATGAAG CGATCTCTAA	AAATTCATACACCTG AATCTGAAAG	1701	1T71	Condition I Regular PCR
NM_001068.2	TOP2B#28 to TOP2B#29	TGATTTGAAGGCGCTAT CTGTTGATTG	TCCTAACTTTAACTTCT GAAATACTAATGG	743	1T72	Condition I Regular PCR
NM_002440.2	MSH4#0	TGAAGTAATCCTCTGGC CTCAGTCTCC	CAAGGCTTCTAATCACC CAGACTCACC	1473	1T73	Condition I Regular PCR
NM_014550.3	CARD10#9 to CARD10#10	CTGTGAGACATTTATCT GGTGTGG	GATCTTAATCTTCCAAT AGTTGCATAAA	831	1T74	Condition I Regular PCR
NM_014550.3	CARD10#1	TCTCTTCTCTCCCTGA TGTGTTG	TCTGAAAACAGTATCA CGAAGAAAGAG	544	1T75	Condition I Regular PCR
NM_003010.2	MAP2K4#0	TTAATTCTGCAAACCAC TTTAGGC	CCTGTCTATTTCTGTA TCTCTCCAT	1193	1T76	Condition I Regular PCR
NM_014550.3	CARD10#16 to CARD10#17	GTCCTACTAAGGGTGT GTGTGTGT	ATAAGGATGTGTAGGT GAGCTGTGT	772	1T77	Condition I Regular PCR
NM_014550.3	CARD10#18 to CARD10#19	CTTGCTGTACTTTTGG GCTCCTT	TTAAGGAGAAGACACA GACACACATAA	1131	1T78	Condition I Regular PCR
NM_006509.2	RELB#0	ATATTATTATGGATGGC AGGTGTAGAG	ATACAGTGTCTCAGGA ACCCTCAC	770	1T79	Condition I Regular PCR
NM_000061.1	BTK#6 to BTK#7	ATGGTCTTTATATGTGT GCAAGGCTGAGA	TCTTTGAGTGTGATTCT TCTGGATTTGAG	1251	1T80	Condition I Regular PCR
NM_003010.2	MAP2K4#0	TTAATTCTGCAAACCAC TTTAGGC	CCTGTCTATTTCTGTA TCTCTCCAT	1193	1T81	Condition I Regular PCR
NM_031466.3	TRAPPC9#22	ATAACACCTATGTCCA GGCAGATT	GTCTCATGCTCACCATT TCTTTCTAT	681	1T82	Condition I Regular PCR
NM_000431.2	MVK#4 to	AGG TTCAGAGTGGACT	CCCTTCTGATATCTCT	1143	1T83	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
	MVK#6	TGTTCTTT	GCAATTTA			Condition I
NM_014550.3	CARD10#3	CATGAGAATACTGGGC TAAATTGAC	CACCCTCTACAAATCA AATTAAGC	1470	1T84	Regular PCR Condition I
NM_001716.2	CXCR5#1	GAAACTTGACATTTGGT CAGTGG	CAAGGAAAAGCAGCAA TAAAAGG	1225	1T85	Regular PCR Condition I
NM_001192.2	TNFRSF17#2	ATTCTCTGTGAAGTTTG GGTTAATGT	GAGAGTGGATAGTGTG GAGAAGGTCTGTGT	1189	1T86	Regular PCR Condition I
NM_199141.1	CARM1#2 to CARM1#3	GTATGTTCAAGGGAGA AACGTCAG	CTATCTTGAGGGAAC TGATAGAGG	1933	1T87	Regular PCR Condition I
NM_000061.1	BTK#2 to BTK#3	TCGTATTGGATATGTGT CCCTATTG	TTTCTCCTTTCTCTTTCT TTCTCGT	1992	1T88	Regular PCR Condition I
NM_006521.3	TFE3#0	TGAACATAGTACAACC GCTCTCGATGG	ATAAAGCCACAATCCA AGCAGGCCACT	1188	1T89	Regular PCR Condition I
NM_145185.2	MAP2K7#1 to MAP2K7#7	TCTTGTCTGGGAGCCAA CTTCAGTGCTA	CTGCATCCGCTTCTTGA GCTTCTCAG	1479	1T90	Regular PCR Condition I
NM_001080547.1	SPI1#2 to SPI1#3	CCATATGGCCTGGCAG TATTATTTAATGT	CTGCTTACAGCCACTCA CATATACCAT	1830	1T91	Regular PCR Condition I
NM_031466.3	TRAPPC9#21	TTGAGTCATAGCTCTAG CCACCACACC	ACAGGTGAGCTTGTCT AAGTTCCT	638	1T92	Regular PCR Condition I
NM_005178.4	BCL3#0	TCTCCATGTCTCTTTCT CTCTGTG	AACCTGGGCTTATATCC TCTTGTC	1376	1T93	Regular PCR Condition I
NM_003223.1	TFAP4#0	GATGGACCTCATCACC CATAGT	ACGTGGGTCTGTTTGCA ATTTAC	920	1T94	Regular PCR Condition I
NM_016123.3	IRAK4#0	GGTATAATCAGTTGCTG ACATTCATA	TCCTCCATAGTGGAGA GGTTT	400	1T95	Regular PCR Condition I
NM_013314.2	BLNK#0	TTCAGATGGACTTGATT ACTCTGC	CAAAGCATTCCAGGAT TTCAGTAT	618	1T96	Regular PCR Condition I
NM_178037.1	ERC1#11	GTAAACGAATGTGCTA CCATTGAG	TGTCCTCATAAAGCTGT GGAATAA	517	2T01	Regular PCR Condition I
NM_005657.1	TP53BP1#9	AATTGTTCTTAGTGGTT TTGGAACA	CAAGATGTTAGGTGAC TTTGGAACT	480	2T01	Regular PCR Condition I
NM_004049.2	BCL2A1#0	CGAAAGTGACTAGGAG GAAGGATA	TTCACAGGAAAGAACA ATGAAGAA	634	2T02	Regular PCR Condition I
NM_005923.3	MAP3K5#21 to	CTGAACTTGGGCTTCCT	ACAGGTTCTCTTGCCT	814	2T02	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
	MAP3K5#22	TGACT	TTCAC			Condition I
NM_005923.3	MAP3K5#23	TTGGTAGGAGGATTGA AGAGGTG	GAAGCACACTGAGAGG CGAATA	654	2T03	Regular PCR Condition I
NM_006290.2	TNFAIP3#0	ACAGATCAGGGTAATG ACAAGATCA	TCACCTAATGGAGGTA TGGTGTTTA	697	2T03	Regular PCR Condition I
NM_014294.5	TRAM1#6 to TRAM1#7	GGATGAAATAACTGAA GCCAGCAGAGG	AGTTAATATAATGGCCT AAAGCATGG	702	2T04	Regular PCR Condition I
NM_002485.4	NBN#13	GCATGATTTACCATCTT TGCTTT	TGCTCCTGAATGAATG ACTTTATG	334	2T04	Regular PCR Condition I
NM_031483.3	ITCH#10	TCATTATTCTTGCTGCT GTTGGTTGGA	TGAACTTTGATCTTCTT CAGTTGTT	448	2T05	Regular PCR Condition I
NM_031483.3	ITCH#11	TGACATTTGTAGCTTCT GTACTTGG	TATCCAAGAGGGAGAT GGAAATGCAAA	372	2T05	Regular PCR Condition I
NM_002908.2	REL#2	TATATTTTCAAGGAATG TTTATGGTATGAC	GAAATCACAGTATACA AGAAGTTTACGTTT	785	2T06	Regular PCR Condition I
NM_031483.3	ITCH#1	CTGATGGGAATTTGGG TTGATG	TGGGCTCTCTTCAGCTA TTGTTC	635	2T06	Regular PCR Condition I
NM_031483.3	ITCH#4	AAGGCAGGAATAGTAG TGCATGAG	GCTAAACCTGGGCTAA CAGCAA	756	2T07	Regular PCR Condition I
NM_002264.2	KPNA1#10	TCAATTTATTTCTGACA GGAGAAGG	TTCTTATTTGGTAAGAT CGTCTCTCA	400	2T07	Regular PCR Condition I
NM_005591.3	MRE11A#2	TCAGAGACTTGGTGTA ATTGGAAGA	AAACAGTTGTGTGTTTA CGTGTCTT	475	2T08	Regular PCR Condition I
NM_005923.3	MAP3K5#2	CATTGTTAATACAAATT TTCCCACA	CATACCTGGCCTGAAT ATACTATGAAA	396	2T08	Regular PCR Condition I
NM_002440.2	MSH4#1	ACTAATACATCATTGCA TAATTCAAATCTT	GACTCAAATTATGGAT AGAGGTA	397	2T09	Regular PCR Condition I
NM_002440.2	MSH4#2	GATTGCATTATTTTGTG CTCTTGAT	CTTTAAACTCTAGATAC TGCTAACAGAGC	325	2T09	Regular PCR Condition I
NM_147200.1	TRAF3IP2#4	AAGCCCAAGGTTTCCTC TTATTATT	ACTTCAAACCTCATAAC CCAGTGCAGAA	658	2T10	Regular PCR Condition I
NM_014294.5	TRAM1#8 to TRAM1#9	GAGATTTTCAGGAATTT GACTTACGG	ACTGAGTTTCCTCACCC AAGGGATCA	859	2T10	Regular PCR Condition I
NM_145725.1	TRAF3#8	TTCTGAACACTTGCCAC	ATGTACCTAACATAGC	597	2T11	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_145725.1	TRAF3#9	CTGTCAC TTT CTTTGCTTTCCTAACCT CTCTGAC	CCTCATCC AGAGGAGTTGCCTTCT GCTAAAT	680	2T11	Condition I Regular PCR
NM_031483.3	ITCH#0	TCAGTAATAAATAGCC AGGTTAGCAC	GTCAAGTGATTCTCACG CCTCA	431	2T12	Condition I Regular PCR
NM_000074.2	CD40LG#3	TTGCACAGTCTCTATTA CACAGTTG	AGTGAAGATGGGTTAG GAGGAGGGATG	515	2T12	Condition I Regular PCR
NM_014314.3	DDX58#9	GAAGTATCAAAGGCAG AGAAAGGTT	TGCATGTGTCTGGATGA ACTTACTTTGG	443	2T13	Condition I Regular PCR
NM_000074.2	CD40LG#2	GGTTGAGGTCATAGGA AGGGTCAGGAT	GGACCAGAGAAGGTGT CAATTT	519	2T13	Condition I Regular PCR
NM_178037.1	ERC1#15	TTGGCTAAACTCTTTCC AGTATCC	ACAGAAATAACCTCCA AACTGTGC	677	2T14	Condition I Regular PCR
NM_000377.2	WAS#11	CAACCTCCCAGGGCAT CTTATCTTTCT	CCCCTTCTTGATTCTT AGCCCCTAAA	583	2T14	Condition I Regular PCR
NM_000234.1	LIG1#4	GGAACACTTGGAGGCA GTAAAGAT	ATGGGAAACTGTGCCT GAATTA	865	2T15	Condition I Regular PCR
NM_000234.1	LIG1#8 to LIG1#9	ACATCACAGTTGGAAG GAATGACT	GAGAATGAGGCAGAAA GTCAAGAG	688	2T15	Condition I Regular PCR
NM_001068.2	TOP2B#33	TCTCTTCAGTTTGGTTT GTTGGTA	AATTCAATCTTTTCCAC ACAGCAT	244	2T16	Condition I Regular PCR
NM_001278.3	CHUK#1	TTGTATGCTGTTGTGTG TTTGAAG	GCTGTAGAACCAGGGA AATGTAAGT	353	2T16	Condition I Regular PCR
NM_004619.3	TRAF5#7	CAGGTGATGTCTGTCAT TAGGTGAACCAT	AAAATGCAGAACTACA GATGCTCTC	930	2T17	Condition I Regular PCR
NM_178037.1	ERC1#12	TCGGTCGAATTACTATC TCATCAA	AACTCCTTGGGACTTCT CCTCTAT	652	2T17	Condition I Regular PCR
NM_002838.3	PTPRC#3	CAGATTCACTTACTTCA CAGTTTGG	ATAGCTGCACATTGAA TAAGTGGTT	368	2T18	Condition I Regular PCR
NM_021988.3	UBE2V1#0	CTTCTAGTGTCCCTTCC TCTTCC	ACAGAAAATACTTGCC CTGGACT	285	2T18	Condition I Regular PCR
NM_178037.1	ERC1#2	AGGAGAGCACTGAATC TCTTTCTG	ATTTCTAACAACCTCACA CATGGAAG	198	2T19	Condition I Regular PCR
NM_005657.1	TP53BP1#14	GTGTAAGGTGGTTTGG	TTAGGATTTGGGCACTA	289	2T19	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_032682.4	FOXP1#7	AGTTTGAT CTAGACCCGCTGCCTA GTTTATG	ACCATT GAAATCTGGAATTTGA GGCATACT	243	2T20	Condition I Regular PCR
NM_203351.1	MAP3K3#2	GTCAGTGGTTATGAAG GCAGAAG	GTTGCAGCATGAGTAG CAGATTTA	318	2T20	Condition I Regular PCR
NM_004504.3	AGFG1#5	AACTCATGTGTCATGTA TTTTCAATT	CCAGAGCTTTTGAAGA TAGAACCA	329	2T21	Condition I Regular PCR
NM_004504.3	AGFG1#1	CACTAAAGCACTATTTG CATTTC	ACATCACCTACACGTCC AAAGTTA	818	2T21	Condition I Regular PCR
NM_003998.3	NFKB1#14	TGAGAGCAGATTCCAT TCTTGA	TGCACCCAAACATAAC AGAAG	287	2T22	Condition I Regular PCR
NM_145331.1	MAP3K7#5	AGCCTTCCAAAGAGAG CTAGGTTA	AACCATGAAAGCACCA TGAGTATT	655	2T22	Condition I Regular PCR
NM_002485.4	NBN#8	AACCATGTGCAGTATTC CCTAGTT	AAATAACTACTCGCCG CTCCTTTA	443	2T23	Condition I Regular PCR
NM_178037.1	ERC1#13	CGTGCGACTTCTTAAAC TGATAAC	TTGCCTAGTCTTCATAC AACCTCA	781	2T23	Condition I Regular PCR
NM_004964.2	HDAC1#3	AAGGAAATTGTGAAA CTAACCTTT	TCAGATCAGCCAACTA GGATAGC	207	2T24	Condition I Regular PCR
NM_014659.3	PIIP5K1#25	TGCCTACCCTACTGGGA TTCTG	GTGGATTGCCTAACTA GCTTTCTAA	544	2T24	Condition I Regular PCR
NM_031466.3	TRAPPC9#5	CAAGCTATGAGAGAAT GTGTGCTG	AAAGAAGGGTGCCTCC ATAAGAT	899	2T25	Condition I Regular PCR
NM_001033855.1	DCLRE1C#1	GTTCTGAGGAGGATTCT TCACTTG	CCTATTTCTTAATCTGG GTGATGC	362	2T25	Condition I Regular PCR
NM_021988.3	UBE2V1#1	TCACCTGTCAGAGAAC CATGTG	AATTTGGAGACTGGCTT CAGGA	715	2T26	Condition I Regular PCR
NM_005923.3	MAP3K5#1	TCAACCTGGGAAACAT AGGAAGA	CATGGAGGCTTGACCA TACCTT	859	2T26	Condition I Regular PCR
NM_013314.2	BLNK#3	GGTCAAGTATATGGCA CCAGAAAG	TGACCACCAGCATGTA ATTCAG	257	2T27	Condition I Regular PCR
NM_145725.1	TRAF3#4	ACCTGTGGCATCCTGA GACACT	ATACACATGACTCTCAC GAACTGG	386	2T27	Condition I Regular PCR
NM_032682.4	FOXP1#8	TTTGGCAATGGTCATGT	AAACTCAAAGCTCCAC	355	2T28	Regular PCR



Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_014659.3	PIIP5K1#26	AGATTT GAGACGGGTATATGGG CATTGA	CAAAGTAG ATCTTAGAAATGGCAG ATGAGACTG	515	2T28	Condition I Regular PCR
NM_016734.1	PAX5#3	TACACAGGGAAACAGA AGCAAAG	GCATTAGTACGTGTGCT GAAGTGT	406	2T29	Condition I Regular PCR
NM_004964.2	HDAC1#1	GGAAACTAGAAATGAG CCAGAAAG	TGAGTGGTGGAGAAAA TGAGATAA	318	2T29	Condition I Regular PCR
NM_014314.3	DDX58#1	TCCAGAGAGGATGGGA AGAGTG	CATTGGGCAGAAATGC AACTAA	624	2T30	Condition I Regular PCR
NM_199141.1	CARM1#1	TTTGTGGCACTCTGGAA GAA	TGTATTCTGGGCATACC TGCAT	412	2T30	Condition I Regular PCR
NM_005657.1	TP53BP1#15	ACTACCTGACTTTCTCC CTTCCTT	CAAGAATTGTCATTAG GCAGACAT	734	2T31	Condition I Regular PCR
NM_178037.1	ERC1#1	TGCTTCCTGTTGAGAAT AAACTGA	CCCTTTAGCAACAAAT GAACTCTC	896	2T31	Condition I Regular PCR
NM_178037.1	ERC1#14	GTTGGCATTGCTTTCT TTTG	CTGTCATAGAAATCTTG CTGGATG	508	2T32	Condition I Regular PCR
NM_000431.2	MVK#7	CTCCTCCATCTTGAGTT CAGTGT	GTCCTGACCTCTATGTG CTAGCTT	753	2T32	Condition I Regular PCR
NM_020661.1	AICDA#0	GGAACCTAAACATTAA AGCAGAGC	CAGTTACATGAGAGAA AGGGATAGC	393	2T33	Condition I Regular PCR
NM_024309.3	TNIP2#1	TAATACGACTCACTATA GGGAGAAACCCTTGGA	ATTAACCCTCACTAAA GGGAGAGTGAGTATGT	617	2T33	Condition I Regular PCR
NM_003037.1	SLAMF1#0	TGAGTGAG AATCCTCAAGACACAA GCAGAAA	TTGTGTCTGG CTAAGGAAGAGTGACC AAACACAA	373	2T34	Condition I Regular PCR
NM_004964.2	HDAC1#2	ATAACTTGGCCTTTCTC CCTTCT	GCACTCTGGCACCTTTA GGA	289	2T34	Condition I Regular PCR
NM_013314.2	BLNK#1	GCCCAGTGACCATATTC CTTATAG	CCAGCCAATAGTAAAG AAGGGTTA	417	2T35	Condition I Regular PCR
NM_013314.2	BLNK#15	AAGCATTGATCTCACTC AGGATTT	TCCTTTCTCCTCATCTC TAGCATC	469	2T35	Condition I Regular PCR
NM_005591.3	MRE11A#17	TATTCGTGGCAGCTGCT GGATT	GTTTCAGCAACTAGCTG GCAGTCTC	256	2T36	Condition I Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_015055.2	SWAP70#2	TGACATTCTCAGTTTCT TCCATGT	TGGACGTGAGGATAGA TTCACCTA	846	2T36	Regular PCR Condition I
NM_001716.2	CXCR5#0	GAAAGAAGCTGAAATG CTTGACT	GACTCTGGCAAAGGAT GTTAGAAT	382	2T37	Regular PCR Condition I
NM_015055.2	SWAP70#6	AAACCAAGAGGTTATG TGACTGCT	ATCAACATAGTTTCAG GGCTAGGA	558	2T37	Regular PCR Condition I
NM_178037.1	ERC1#10	AATTTGTGACTCCTTCC CTTCTC	CCTTGACATTTTATCCT CACAGC	283	2T38	Regular PCR Condition I
NM_016123.3	IRAK4#4	GCCAGCTGATCTCTTGA TCC	CAAACATCACTAGTTC ATGGCATA	244	2T38	Regular PCR Condition I
NM_005657.1	TP53BP1#13	AGAGCAGAGTGAAGGT TTAGGTGT	CCTCATCACCAGTAGCT GTGTATT	194	2T39	Regular PCR Condition I
NM_004049.2	BCL2A1#1	TCCAGCATACTTAATCT CCAATGA	AGCCTAGTGACACAGA GAAGGACT	520	2T39	Regular PCR Condition I
NM_002758.3	MAP2K6#10	GCCAATTTCTTTGTCTG TGGAA	AAGAATAGTGACAGGT CCCAACC	612	2T40	Regular PCR Condition I
NM_003010.2	MAP2K4#1	ATGCCCTCAGAATAGT ACCTGTTT	CAGTTGGACAGAAGAC AGTCAAAT	369	2T40	Regular PCR Condition I
NM_203351.1	MAP3K3#1	GGCAGAACTCCCTGAG TATTAGTT	AACCCTGGTAATGTAG TCTCCTTG	314	2T41	Regular PCR Condition I
NM_203351.1	MAP3K3#6	CTACATTGAGCGAATA GTGGTTTG	GTTCCCTTGAGAGTCAG GATACCAT	509	2T41	Regular PCR Condition I
NM_006509.2	RELB#7	GGCAAGTTGGGAGCAC AG	CCCAAGGCCAAAGACC TAGT	338	2T42	Regular PCR Condition I
NM_006509.2	RELB#3	CCCAAGGAGTTTGGAT GGAC	GGCCTCCAGTCGCTTAG AAT	289	2T42	Regular PCR Condition I
NM_145912.5	NFAM1#0	CAGCTCTTCTTCTGGTT GTGTG	ATGTTCTGGAGCGAGA GAGTAGAG	380	2T43	Regular PCR Condition I
NM_145912.5	NFAM1#3	CTCTGTGTGACCTCATG ACAATCT	CTAAGGCCTGAAAGAG GTGGA	251	2T43	Regular PCR Condition I
NM_016734.1	PAX5#6	AGAATTGTTGATTCTGG ACAACCTG	TCCTATCTCTCTCTC TCCCTCA	386	2T44	Regular PCR Condition I
NM_016734.1	PAX5#7	GTGATTTGTTGCTTTGA TTCCTC	GATTTATTCAGGTCCGC TTCTCA	247	2T44	Regular PCR Condition I

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_003200.1	TCF3#1	AGTCCTCAGAGTCTTCT GGTCTGT	AGACCCTTGATCTCCTC ACTCC	302	2T45	Regular PCR Condition I
NM_173561.1	UNC5CL#7	ACAAGGACAAAAGCTA CAGGATG	GCTGTGTTTCCTCTTAGG CGTAG	423	2T45	Regular PCR Condition I
NM_024528.1	NKAP#1	TTAGGAAACAACCTCAG CCATTGA	GGGTAGAAGAACATAA ATCACAAGAA	268	2T46	Regular PCR Condition I
NM_024528.1	NKAP#8	TAGACCACTCTGGGTA AGAAAGGA	CCAGAAAGTTACTATG GTCAATCCA	478	2T46	Regular PCR Condition I
NM_024528.1	NKAP#2 to NKAP#3	CAATGCTTGCTTTTAAT GGTTCTT	ATTGTTTTTCAGGAACCT TCTTCTAA	606	2T47	Regular PCR Condition I
NM_001167.2	XIAP4#4	ACTTCCCTGATTTCCCA TCATTT	CCATCTGCAAGGTAGG AAGAGG	886	2T47	Regular PCR Condition I
NM_001167.2	XIAP4#5	AGAAGTGTCCCTCAAA TCCATCCCTCT	CATCACACATTCAATCA GGGTAA	724	2T48	Regular PCR Condition I
NM_000061.1	BTK#4 to BTK#5	ACTCCTCATCACAGACC ACTAAAGA	GAATACCAATTAACAC TGCCAAGTC	861	2T48	Regular PCR Condition I
NM_013254.2	TBK1#1	TGCAATAGCGAGTTCT AATGCTAC	TTTCTTACACTACTGTT TCTGATCCA	427	2T49	Regular PCR Condition I
NM_013254.2	TBK1#4	TTTCAGATTGGGAAAG TGAAGTTA	GGCCAAAGACTGAATA CCATTTAT	529	2T49	Regular PCR Condition I
NM_002440.2	MSH4#3	GTGAACCCACCTGGCT AGAAAC	TCCCTTAGATTAGGATT TGTATTTAGTGA	756	2T50	Regular PCR Condition I
NM_002440.2	MSH4#6	TTCTTACTGACATTTCT TGTGTTTTG	AACACCTTCACTACTTG TCTTTCAG	303	2T50	Regular PCR Condition I
NM_002838.3	PTPRC#7	AGTTGATTTGATATTTT GGCATTG	TGGTTAAGACAGCAGA AAGTTCAC	463	2T51	Regular PCR Condition I
NM_002440.2	MSH4#8	AGTCTCTGGTGCTGCT CAGGATT	GGAAATTCGCCATGTT ATTCCTGC	504	2T51	Regular PCR Condition I
NM_004619.3	TRAF5#6	AGCAGAATATCCTACC ACCTCTTTC	ATACCAGCATAGAGCA GGTAAATCC	240	2T52	Regular PCR Condition I
NM_003037.1	SLAMF1#3	TGGGAGAGAATGCAGA AATAGAA	GGGATCAAGACATGTT GAATTAGA	387	2T52	Regular PCR Condition I
NM_001033855.1	DCLRE1C#3	TTTACAAGGCGTTTACT CCGTATT	AATGAGCATTCAAAT CAAAGAGA	422	2T53	Regular PCR Condition I

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_013314.2	BLNK#16	AGAATGAGAGAAGATG GGAGGAG	AGTGGAGAGCCCAGCT ACATTAGT	590	2T53	Regular PCR Condition I
NM_005591.3	MRE11A#9	GGAGATGTAATCATTCT GCATTGT	TTCCTTCACAAATCCTA TAAGAACAT	450	2T54	Regular PCR Condition I
NM_005591.3	MRE11A#12	TTGCTTCGGGTCAATAT GAGTTT	TGAGTCACTGCACTTGC TAAACAG	504	2T54	Regular PCR Condition I
NM_013254.2	TBK1#0	GGTAACACCAAAGAGT TAAGCACA	AATCACTCTACCATTAG GGAGCTG	759	2T55	Regular PCR Condition I
NM_178037.1	ERC1#9	GGTAAAGCAGCATATA GGAAATGG	ATTATGTTACAGCCCAT AGCTTCC	874	2T55	Regular PCR Condition I
NM_003010.2	MAP2K4#3	CTTTGTTGCATAACTCC CAACAT	TTTACAAATGACAGCC ACCAATA	659	2T56	Regular PCR Condition I
NM_003010.2	MAP2K4#6	TCTGAATTTAAGGACTT GACCACTT	TTGTTGGTGTGCTTCAT CTACC	693	2T56	Regular PCR Condition I
NM_203351.1	MAP3K3#5	TGCAAAGTGAAACATT GAGATAAAC	AATCTTTGACAGTCTTT CCTAATCG	550	2T57	Regular PCR Condition I
NM_003010.2	MAP2K4#7	TTTCTTCCTTTGTCTCCC TCTTC	CTGTTCCCATTCTTAGT GCAGTT	667	2T57	Regular PCR Condition I
NM_007372.2	DDX42#1	TTTCCCATAGCACAGCT CTTTAAT	GTACTIONACAGGGCAAGT GGAAGTAGA	669	2T58	Regular PCR Condition I
NM_003010.2	MAP2K4#2	AGCTCTTGGGATTCTCA CTTGAT	GCAATCAACATGCACA CTTCATA	772	2T58	Regular PCR Condition I
NM_002758.3	MAP2K6#1	TTTGAATGGAGACATG AGAGCTG	GTAGTGGCTTTACACAG GGATTTG	534	2T59	Regular PCR Condition I
NM_203351.1	MAP3K3#3	GATGTATGCCTAATGTT GCTAACG	ACAAGGTTCAATTAGT AGGCCAAG	329	2T59	Regular PCR Condition I
NM_203351.1	MAP3K3#8	CTGGAACCTTGCCTTTC AAACTAA	GATGGTAAAGCAATGG ATGAGAAT	638	2T60	Regular PCR Condition I
NM_003010.2	MAP2K4#8	TTTGCTCTTTCCTCTTTG TTCTCT	ATTCAGTAAATGCTTCC AGGTGA	551	2T60	Regular PCR Condition I
NM_203351.1	MAP3K3#4	TGAGCAATAGTTGTGG GTACTGTT	TAAACCCTCTGCTTCTT GTTAAGG	683	2T61	Regular PCR Condition I
NM_203351.1	MAP3K3#7	CCATCTCTGGAGTTTGT TTCCTAT	AAATCTGTAAATCCTC ACCCAAC	580	2T61	Regular PCR Condition I

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_006785.2	MALT1#2	TTGATTGAGAAGGAGA TGTGAATGAGTGA	CCACAAGGTCCTAAAT CTTCTGATA	712	2T62	Regular PCR Condition I
NM_006785.2	MALT1#9	AATAAATATCCTTTGCC TGGCTCT	TCAGATGGAATGAAGA TCAAATGT	623	2T62	Regular PCR Condition I
NM_014959.1	CARD8#0	TGTAAGAAAGAGTCAT GGGAGTCTG	TTCTCATGTTCTCTGT GATATTGA	389	2T63	Regular PCR Condition I
NM_014959.1	CARD8#6	GTTTCCTCAGTGATTA GTGTGCAA	CTTGGATACCTTCCACT GTCACTC	275	2T63	Regular PCR Condition I
NM_014959.1	CARD8#7	TCCACAAATTAAGCTA CAGACACAA	TGCATGAGGATACAGT CAATAGGTA	573	2T64	Regular PCR Condition I
NM_000234.1	LIG1#0	CCAGTAAATCTCACCA GCAAATTA	AGAAAGAAACAGAGGA CTTGGAGA	305	2T64	Regular PCR Condition I
NM_000234.1	LIG1#3	AAAGGAGGGTAGACAG AGAGGTTT	CCAGAGCTGTTGTAAG GATGACTA	649	2T65	Regular PCR Condition I
NM_006663.2	PPP1R13L#11	GAAATATTCCATTTTCAT CAGTGGAG	CCCAAGGCTAAGGCAG ATTACTAAA	449	2T65	Regular PCR Condition I
NM_004504.3	AGFG1#10	AGTTTCATTCTGGTCAT TGTGTTT	CACTTAGCTTTCTGAGG TCCAAAT	556	2T66	Regular PCR Condition I
NM_002908.2	REL#1	ATATTAAGCTATAAAG TGCTAACCAGTCAA	TATGAAGCAACTAATA GTGAGATAGACACA	449	2T66	Regular PCR Condition I
NM_004180.2	TANK#0	CTCAAAGTAGCATCTTC CTGAACC	ACCAAACAAATGGAGA CAGTGATA	747	2T67	Regular PCR Condition I
NM_004504.3	AGFG1#2	CTGAAATCCCCTTCAC TCTTCAT	AGAAGGAAGAATCCCT AACTTTCC	605	2T67	Regular PCR Condition I
NM_001469.3	XRCC6#0	TACCGTCCACATTCCTC ACTACT	CAGAATTATCTGGGAG GAGAAGG	333	2T68	Regular PCR Condition I
NM_001469.3	XRCC6#7	GGCTAAAAGAGAAGAA AGGAGGA	AAAGTATGGGCAAGGT TCAGAAG	275	2T68	Regular PCR Condition I
NM_002264.2	KPNA1#9	GATGGGAAGGTGAATG AGTAATG	TGAAAGTGGTCTTCAA AGCAATAA	835	2T69	Regular PCR Condition I
NM_022461.3	AZI2#4	AACCATTGGACGTGAT TTAGAGA	TTCAGAAAGTTTAAGG CATCCTGT	484	2T69	Regular PCR Condition I
NM_032682.4	FOXP1#4	AGTGACCATTCTCAGC ATTTGAT	ATATACCAAGAGACAA CCCACCAC	336	2T70	Regular PCR Condition I

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_032682.4	FOXP1#15	CTGGGAAGTACCCTCA CTGAAC	TGGAGAACAATTTTCAC TGCTAACT	275	2T70	Regular PCR Condition I
NM_032682.4	FOXP1#5	TGATTTAATTGCTGTTT GAAGAGG	TCACACCCAAACCATA CTGAATAC	434	2T71	Regular PCR Condition I
NM_032682.4	FOXP1#14	CAGCCATGCTACAATT AACTCAAA	GACTAGGGTCAGATAG CAAAGACC	324	2T71	Regular PCR Condition I
NM_032682.4	FOXP1#1	CTAAGACTGGTGGGAA GTTTCATT	CCTACACTGCCTATTAG CAACTCA	525	2T72	Regular PCR Condition I
NM_032682.4	FOXP1#6	AGCAAATTCATTCTCTG GTCTTCT	AGACTTACGCCTTTGAA TGTAAGC	366	2T72	Regular PCR Condition I
NM_003998.3	NFKB1#4	CCCTGTCATTTGTTTCAT CACA	AAAGGGGCCTGTTTCAT TCTAA	400	2T73	Regular PCR Condition I
NM_003998.3	NFKB1#2	CGTTTTATACCAAATTT GAGAAGC	TGTCAGGTTGTTGATCT TTCAGA	235	2T73	Regular PCR Condition I
NM_022406.1	XRCC4#1	ACAGAGAAAGAATGTC AAGGGTTT	CTTCTGAGGTGTTCTGG GAATAA	530	2T74	Regular PCR Condition I
NM_005921.1	MAP3K1#1	CAGATAAATCAGCATA TCCACCAG	CTTCCAAATGACCACA ATATCAAG	692	2T74	Regular PCR Condition I
NM_005923.3	MAP3K5#11	ACCCTTGGGACTTGAG AATGAA	ACCTCCACATGGCTGA GTGTAA	521	2T75	Regular PCR Condition I
NM_145331.1	MAP3K7#13	GTAGCTCTAGGCCATTG GTGTTTA	GCAAGGCAGTCTCTGT CTCTGTAT	605	2T75	Regular PCR Condition I
NM_005923.3	MAP3K5#7	GCAGTTTCTGAAGCGTT AAGTCC	GGGTTGAATGCAGAAC CCATA	566	2T76	Regular PCR Condition I
NM_005923.3	MAP3K5#24	TTTGAACCAGACTGCCT TTCAC	AGATTTGGGAACCACT GGGTAA	685	2T76	Regular PCR Condition I
NM_005923.3	MAP3K5#25	GGCAGGAGGGTAGCAT TCATA	TTAGGGCACCTGGAGA TGAAGA	568	2T77	Regular PCR Condition I
NM_147200.1	TRAF3IP2#0	ATGCTTTTCTCAAATCA AGATGC	GAGCACTGACTGGTTC AGCTATT	242	2T77	Regular PCR Condition I
NM_005923.3	MAP3K5#10	CTGAGGATAGCTGAAC CCATGT	GGTGCATAACTTACGG CATGAAT	694	2T78	Regular PCR Condition I
NM_005923.3	MAP3K5#6	TGGAAGGATTGTGGAT GAGTAAGTA	CAACAGAACAAGACTC CATCTCAAA	618	2T78	Regular PCR Condition I

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_002485.4	NBN#7	AGTTGCTTTATCTTGA CATTATCTG	GAACTTACCATGTGTGT GTGTTTG	461	2T79	Regular PCR Condition I
NM_003821.5	RIPK2#6	CTCAACACTATTCCATT GTTGCTT	AAACAAACACCTCTAA TGGCTCA	739	2T79	Regular PCR Condition I
NM_001556.1	IKBKB#18	ATTCATCACTTGGCTCC TAATTC	ACCATCAGACAGACAT TTACCAGT	268	2T80	Regular PCR Condition I
NM_031466.3	TRAPPC9#13	CCTTGTGAAACAGGAA TGCAGAT	AGAGCCACTCTGCTCTG TGACC	395	2T80	Regular PCR Condition I
NM_001556.1	IKBKB#0	CCATTCAAGAGCAGTG GTATCTC	CTAACCTGGAGTCAGC TCAGAAGT	395	2T81	Regular PCR Condition I
NM_031466.3	TRAPPC9#8	TTTGTGCTCTTGGAGT TTGGTG	CCAGAGAAGTGAGTGT GGAAGGA	454	2T81	Regular PCR Condition I
NM_031466.3	TRAPPC9#7	ATCTGGGCTTTATCAGC AGGAAG	CAGGGCAGGGATCTAG TCATTCT	578	2T82	Regular PCR Condition I
NM_031466.3	TRAPPC9#18	CAGGTGTTCCAGTCGTC AGTGT	TCCGGCTTTACCTACTT TGCAC	661	2T82	Regular PCR Condition I
NM_021138.3	TRAF2#5	CAGTGTGGTCCATGTG GAAG	AAGGAAACCAGGAAGC ACTG	237	2T83	Regular PCR Condition I
NM_001244.2	TNFSF8#0	GAAGAGAGATAAGGTG TGATGTGG	GTGCTCTTAACCAACA AACGAATA	333	2T83	Regular PCR Condition I
NM_016734.1	PAX5#5	TAGCAACGTGTATAAC CTCCACTC	CATCACCTGACTGAC AAGATACT	587	2T84	Regular PCR Condition I
NM_016734.1	PAX5#8	ATAATGATGTGGACCT GACTTGCT	TTTCCTACCTTCCTCTTT CTCCTT	543	2T84	Regular PCR Condition I
NM_014314.3	DDX58#13	AGGCGGTAGACCAAGA CTCCAT	ACTACCTGCCCTACACG CTTCA	669	2T85	Regular PCR Condition I
NM_006573.3	TNFSF13B#2	GAAGAGTGGGTTTCTA GCTTTGTG	GAGTGGACTGAATTCT AAGTGGAAA	605	2T85	Regular PCR Condition I
NM_003998.3	NFKB1#18	CAGTCAGTTGGAAGTT GACA	CATTCTGAACCTCTGA CTCC	245	2T86	Regular PCR Condition I
NM_003200.1	TCF3#0	CTTTGACCACTCACAAAC TCTTCTC	AACACTCTCCCCTGAA AACCTT	260	2T86	Regular PCR Condition I
NM_006509.2	RELB#8 to RELB#9	TTACTTCTTGTGTGTCC CTGGTATC	GACAGGGGCTTATGTG TAGCTG	350	2T87	Regular PCR Condition I

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_000234.1	LIG1#10	ACCACACTTTGACCTTG AGGAAC	CTTCTCCTCAACCCTGT TTCAC	345	2T87	Regular PCR Condition I
NM_139276.2	STAT3#7 to STAT3#8	ATTGTAGTGGTCTCCAT GTCTTCA	TCAGAGAGCAAGCAGA TAGTATGG	640	2T88	Regular PCR Condition I
NM_007372.2	DDX42#0	AGGTTGGAAGAGACAT ACAACCTCA	AAAGTTTCTTTGCCTCA ATTTCTG	712	2T88	Regular PCR Condition I
NM_006785.2	MALT1#1	TGATGAAAGAGGAGGA AAGGATAC	GCAAACAAGGCACTAC ACATTTAC	462	2T89	Regular PCR Condition I
NM_005904.2	SMAD7#3	GTGTCTTCATTCTAGGA GTCACCA	ACGACCAAAGAGTTTG CATGA	714	2T89	Regular PCR Condition I
NM_000022.2	ADA#1	TCCTTCGTGAACCTCATA GGTATTTG	ATGTCCTCACAGTCCCA CTTCT	287	2T90	Regular PCR Condition I
NM_000022.2	ADA#2	GAGATTTGCTGACTTGT GCATT	CTGGTCCTAGTCATAGG GATCAAT	409	2T90	Regular PCR Condition I
NM_031466.3	TRAPPC9#14	GACACACAAAGACCTG GACGTG	AAGCCCTCGCTGACTT CTACT	534	2T91	Regular PCR Condition I
NM_031466.3	TRAPPC9#15	AGCAGTTCTTCTCCTC CCTGT	TTTCTTCCCACTCCAC CTCCT	767	2T91	Regular PCR Condition I
NM_003998.3	NFKB1#1	CATTTTAGGTGTCCCAA CTTCA	GACAGACTATTAACAA ATCCTGCAT	238	2T92	Regular PCR Condition I
NM_022406.1	XRCC4#2	CCAGGCTTCTCAATCTT GATATTT	CTTCAATGCCCAATTAA TCCTTAT	473	2T92	Regular PCR Condition I
NM_032415.2	CARD11#0	TTTCTTCCAAAGCAGAA CATCTC	CCCTCAATCTTATCACA ACTACATCC	731	2T93	Regular PCR Condition I
NM_031466.3	TRAPPC9#17	GGGACATCACAGGAAA GATGGT	TGCACAGTGAGAACCA CACGTA	669	2T93	Regular PCR Condition I
NM_002200.3	IRF5#0	CAGAAAAGCTGATGCT TGGAAA	ACGAGCAAAGGGTGAG TAGGAC	797	2T94	Regular PCR Condition I
NM_003200.1	TCF3#2 to TCF3#3	GAGATGATGAACCGAA GCTTTTAG	GGGAAGCCTAGTTGCA GAGTG	658	2T94	Regular PCR Condition I
NM_002838.3	PTPRC#1	ATTGCCACTTGGTGAAT GTTCTAT	GCAGAAAGTTTAAAGAA CAAGTGAATG	306	2T95	Regular PCR Condition I
NM_002838.3	PTPRC#25	ATGATGCAATAAGCCA ATATTTACAT	GTCCACATTAACAA ATCCAAA	225	2T95	Regular PCR Condition I



Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_005923.3	MAP3K5#14	CCTGGCAGTGTGAAAT GCTTTA	CCAAGACAACCTGAGC CTAACA	799	2T96	Regular PCR Condition I
NM_005923.3	MAP3K5#18	AAGAAGCCCAATGAAA TGATGC	TGGGCAAATTAACAAG CTAGAGG	973	2T96	Regular PCR Condition I
NM_178037.1	ERC1#4	CAGTACAGTGGTGTTC AGTTGCTTA	AGTGTAACCAAGCTCA TTGTCATTC	882	3T01	Regular PCR Condition II
NM_178037.1	ERC1#5	TGTGCATGAAGTTTGA GAAACATAG	TAAATGAAGTTGTACC ATCCCAAGT	740	3T01	Regular PCR Condition II
NM_031483.3	ITCH#8	AATTTGTGTCCCTGTTA TGATTGAAA	TTTGCACAACCACTTTA GAGTCAGAT	855	3T02	Regular PCR Condition II
NM_031483.3	ITCH#9	CAGTTCTAGGCTCATTA ACACTTTC	AAACTTCCCAGACATTC ACTCAAGCAAGA	728	3T02	Regular PCR Condition II
NM_004346.3	CASP3#2 to CASP3#3	TTGTGGACTTCTGAATT GCTG	AACCCCTGCTTAATCGT CAA	773	3T03	Regular PCR Condition II
NM_020870.3	SH3RF1#4	CGTACCAAATGAGGCA ATGTGT	AAACAGCCACAGCTAC AGACCA	888	3T03	Regular PCR Condition II
NM_005732.2	RAD50#2	CCCATGATTCAATTACC TTCAACT	GATTATGTGCTTTCAAT TCAGCAA	913	3T04	Regular PCR Condition II
NM_005921.1	MAP3K1#10	AATTTGTATTGGTGTAG GCTCCTG	ACTGTTCTTATCGACTG GTCTTCA	830	3T04	Regular PCR Condition II
NM_032415.2	CARD11#12	ATGGATCTCTGTCCTGT ACCATGT	TCTCTGAGGCTCCTGTC TTTATCT	781	3T05	Regular PCR Condition II
NM_032415.2	CARD11#22	ATCTCTGCCCATGAACA TCACT	AGATTGCGTCTTCTTTC TCATCTC	652	3T05	Regular PCR Condition II
NM_031466.3	TRAPPC9#16	ATGTGAATATGTGCTTA TGGAGGAC	ATCTGTCTTGGCTTCTCCT TGGTG	944	3T06	Regular PCR Condition II
NM_031466.3	TRAPPC9#19	GTCGCCATCCAGCTCAC TATCT	TCAACACTGGCAAGAA GCATGT	760	3T06	Regular PCR Condition II
NM_001014432.1	AKT1#1	TTTCTGTCGCTGGCCCT AAGAAACA	AAATCTGAATCCCGAG AGGCCAAG	327	3T07	Regular PCR Condition II
NM_002460.1	IRF4#4	GTTTCTCCATCAGCTTT GGTTTTTC	CCTCGGTAAAGGTA GGCACATTCTA	624	3T07	Regular PCR Condition II
NM_021255.2	PELI2#1	GGAGTGTTTAGTGGGC AATTCTT	AAGACGAAAGGAAAGA GAGCAG	343	3T08	Regular PCR Condition II

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_001017963.1	HSP90AA1#1	TGCAGTTGGTTGAGTCA TTAGGAT	CAAGGGATTGGATTGT CTTTCTCT	890	3T08	Regular PCR Condition II
NM_021255.2	PELI2#5	GAATCTTGGAGTGATT GCTTGAT	ACCCTCCTCTGATAAAC AGCATT	732	3T09	Regular PCR Condition II
NM_012452.2	TNFRSF13B#0	AGCCCAAGCACTAATC AAATCTAA	CTAATGTGGGACAGGC TGATTTGAACA	650	3T09	Regular PCR Condition II
NM_145331.1	MAP3K7#12	ATGACAGAAGATGGTG GAAGAGAG	AGTTCTCCATGTAATGC CCTACG	804	3T10	Regular PCR Condition II
NM_007242.4	DDX19B#1	TAATCAGGGCATTAAAG CAAATCACAAT	AACACTTTGGTCATACA ATCCAGTT	501	3T10	Regular PCR Condition II
NM_033355.2	CASP8#4	TACCTTTCCTGCCATGT CTC	TTTCTGCCCTTGTCAG TTT	222	3T11	Regular PCR Condition II
NM_001469.3	XRCC6#6	TTCGAGTTATTTTGCAT CTCCTC	CCGTAAACTGCACTGT GTGTTAG	285	3T11	Regular PCR Condition II
NM_020870.3	SH3RF1#9	AAGGTCAGGTTAGCAC CACACA	GGGACCAACCCATTAA GAAACA	808	3T12	Regular PCR Condition II
NM_005657.1	TP53BP1#16	ATGGAGCCTCTAAACA GTTCTCAT	AAACAAAGTGTGTCAC AGGAAA	665	3T12	Regular PCR Condition II
NM_001556.1	IKBKB#7	GAATGAAGTACTGCT ATTCCAAA	ACTGCTGTTGAATCAG AGATAAACC	1196	3T13	Regular PCR Condition II
NM_031466.3	TRAPPC9#10	CTTTCTGACTCCAGACC ATCCTTG	CCAACCCTGAATCTTTC TCTGATG	965	3T13	Regular PCR Condition II
NM_016123.3	IRAK4#5 to IRAK4#6	CTAATGTTGATTAATAC TGGCTGAAAAG	ACAGTTACCCTCAAATT GTGTCTACTTA	1494	3T14	Regular PCR Condition II
NM_013254.2	TBK1#2	AAACAAATCCAACCTC TTCACCTAA	CATTTCCCTAATAACCA ATGATGTC	1082	3T14	Regular PCR Condition II
NM_004180.2	TANK#5	GTAAGTGTGAACAAGA TGCAAAGC	TAAGAAAGTGACACCA CGACAGATA	1125	3T15	Regular PCR Condition II
NM_012092.2	ICOS#0	TCACCATTGGGATGATT AAGAAGA	TGACAGGTAACCTCAA GCAGGTAA	1329	3T15	Regular PCR Condition II
NM_002908.2	REL#0	CAAGAATTCAGGGGTT GGGAAG	CTATGACAACAGGATC GAATTACAGAGC	419	3T16	Regular PCR Condition II
NM_033355.2	CASP8#0	AGTTGCAGTAGCCTTTG ATGAAC	AGAAGCTTAGAATTGT GGCACTG	543	3T16	Regular PCR Condition II

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_004504.3	AGFG1#11 to AGFG1#12	ATGAAAGAGCTGAATG AAAGTTCTCTTGG	AGTGCAAGAGGTGGAG AGATGTAAT	1375	3T17	Regular PCR Condition II
NM_004504.3	AGFG1#3 to AGFG1#4	CAAAGTTATTCTGTGTG AGAGGGTTT	AACAAGATTAGCCATG AGTGATTAGC	1625	3T17	Regular PCR Condition II
NM_004180.2	TANK#3 to TANK#4	CATCTCTTCAGACTTTC CTTCTTCA	GTAGTGTGGCTTCAAG GTCACTTAT	1435	3T18	Regular PCR Condition II
NM_004180.2	TANK#6	TCAAAGTTTAGTTGTGC CCTTTATG	ACCACTCTCATTCTTCC ACAAGTTA	1675	3T18	Regular PCR Condition II
NM_005732.2	RAD50#16 to RAD50#18	TGTTTGCTCGTTTGAAA TATAGGACT	AGAAGTAAGATTGAGA ATTAGGAGAAGG	1511	3T19	Regular PCR Condition II
NM_014829.2	DDX46#13 to DDX46#14	TTCTTGAGATTGGGAG ACTGTGGGAGT	GTTGATAAATGGCGAT GGAAC TTGGTC	1667	3T19	Regular PCR Condition II
NM_147200.1	TRAF3IP2#1	ACAGGATGGTCCAATC ACATTCT	TGGTCATCTCTCTGCTT CTAGGC	1376	3T20	Regular PCR Condition II
NM_147200.1	TRAF3IP2#2	GGTGTGAAAGAGGTTC TTCATGG	GGCTAACAGTGGAAGT CAGTCGT	882	3T20	Regular PCR Condition II
NM_145725.1	TRAF3#2 to TRAF3#3	TTTAGATGCTCCAGAGT GATCGTT	GCCTGTGGAATGGGAG GAC	1209	3T21	Regular PCR Condition II
NM_015055.2	SWAP70#3	GCGCTTGTTTGTTGAGT AAGACTA	AATGAAAGCCTAATAC AAGACTGGA	1044	3T21	Regular PCR Condition II
NM_000234.1	LIG1#18 to LIG1#19	GACATTAGTTTCTGTCT CCTCTTGG	AGAGTCGGAAATGGAA GTCAGAG	1016	3T22	Regular PCR Condition II
NM_003807.2	TNFSF14#0	CACACA ACTGAATACA CACATTCACA	ATGAAGACACTGAGGT TCAGAGAGG	1358	3T22	Regular PCR Condition II
NM_013314.2	BLNK#6 to BLNK#7	ACTCCCTCCCATACAGT CAACTATG	AAACCAAACCAAATCA CACATACAC	1511	3T23	Regular PCR Condition II
NM_001278.3	CHUK#17 to CHUK#18	TGGGTTAGTATGGGTTA AAGATAGCC	AGCAGTTCTATGAGAC ATTCTGTTT	1729	3T23	Regular PCR Condition II
NM_005657.1	TP53BP1#10	CACTGCTCCTGGCTATA CTAGAGTT	ACCAAAGATAGTGTTT ACTCCTGAC	1612	3T24	Regular PCR Condition II
NM_002755.2	MAP2K1#3 to MAP2K1#4	GAACATTGTCATAACT GGTCTGGTA	GAGACTGGGTA ACTAA GTGCTGGTT	1746	3T24	Regular PCR Condition II
NM_002758.3	MAP2K6#0	AACCTTACCTCCAGCCA ACCCAATC	CTAAATACTGGCACCG CAACGGTCT	1579	3T25	Regular PCR Condition II

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_003010.2	MAP2K4#9 to MAP2K4#10	ATTGCTGGTTTCTCTTG GGTAGTATCTGC	AAAATTCTTTACGTCTT GCTTCCTCTC	1892	3T25	Regular PCR Condition II
NM_001469.3	XRCC6#5	GCTTTGGTGTTATGAGG GAATTT	TCAGTAAGAAAGCATC TTGGGTTA	1074	3T26	Regular PCR Condition II
NM_013975.2	LIG3#7	GGTGATTATTTTCATAGG CAGAATACAA	AGCCTTAGTCTAGCTCA CAGGAAGCATCT	713	3T26	Regular PCR Condition II
NM_013314.2	BLNK#11 to BLNK#12	GGATGAGGACAGACAT TTCACTCT	TTACGTTCTGTGAGCCT GACTTAT	1140	3T27	Regular PCR Condition II
NM_001278.3	CHUK#11 to CHUK#12	TAAGTATTGCAGGTGCT CTGTAATG	CCTGTCTCTTGTTCTAA TGTGAAGGT	1008	3T27	Regular PCR Condition II
NM_002838.3	PTPRC#14 to PTPRC#15	GGTGATTATTCAACCA GTCTAGCA	CAAATGCAGGGGAAGG AATAGT	949	3T28	Regular PCR Condition II
NM_002440.2	MSH4#19	CCTTGTTGGAGGAAAC TGATTTGT	GGCCCTAAGTGGTCTGT GAATAATA	1000	3T28	Regular PCR Condition II
NM_022406.1	XRCC4#5	GCATAATTTTGTGGGT CACATT	TACGTTCTCAGCATTTT AGCTTTA	399	3T29	Regular PCR Condition II
NM_005204.2	MAP3K8#0	TCATACACACAGTTGA CACAGAACC	ATTAAATGAAGCTGCA GTAGGAAAG	567	3T29	Regular PCR Condition II
NM_001033855.1	DCLRE1C#12	TGATTTCCCTTATGGTC AAGATTT	GGCCTCTACTGATCTTA GGGTGTA	523	3T30	Regular PCR Condition II
NM_021255.2	PELI2#2	GAGTGGTGGCTCATAA CTACAGG	ATTCTTTCAACAACCAA ACAGGA	335	3T30	Regular PCR Condition II
NM_145725.1	TRAF3#7	GCTAACAGAAGGCCTA TATTGTGAA	CGGTAGATCAAAGGCA TGGAAG	504	3T31	Regular PCR Condition II
NM_031466.3	TRAPPC9#2	TGTAACATTGCCTACGT GAAAGACATGG	GAATTTCTTCTGCCGTT TCCTCT	804	3T31	Regular PCR Condition II
NM_031466.3	TRAPPC9#3	TGACTTGACTAATGATG CTGGTTT	TTAAAGACTGCAAGTG AGCAGAG	246	3T32	Regular PCR Condition II
NM_015247.1	CYLD#16	AATGAAATGTGAGGAA CAGAGTGTCTCT	AGGACTCTGCCTTCAGT TTCTTT	553	3T32	Regular PCR Condition II
NM_031466.3	TRAPPC9#9	AATATGGCTTCTGCTTT GTTCTGG	TGGCCCTGACTCTCTCA TCTCTA	483	3T33	Regular PCR Condition II
NM_022406.1	XRCC4#0	TTATTTCCCTTGGTGTTT GTGTAGC	AAAGTATCCCTGAGGA CTGAAGAA	318	3T33	Regular PCR Condition II

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_001556.1	IKBKB#3	TGAGAATCAAACCTTTA CTCACCTCA	AGTTAATCAGGAAGGA AGGGAAAC	560	3T34	Regular PCR Condition II
NM_006084.4	IRF9#6 to IRF9#7	GGGCTGTGCTGTGATCT GCTACTTCTAA	TACTTCAAAGGAGACA GGAAGAACA	639	3T34	Regular PCR Condition II
NM_003998.3	NFKB1#3	TTCAGCAGATTACTCTC CACACA	TCCAAAGAGTCAAAT CAACCAT	710	3T35	Regular PCR Condition II
NM_002485.4	NBN#4	GTGACCAAAGACCGAC TTCTATTT	TGAAACAAGCATTAAA GAGGGAAT	375	3T35	Regular PCR Condition II
NM_033355.2	CASP8#5	GAGGAAACGACCCCGA GT	GAAACATGGCCCTTTTG GTA	369	3T36	Regular PCR Condition II
NM_001469.3	XRCC6#1	CAAATACGAAAACAAG GACAAACA	TTCCCTTCTTCCTTTAT ACTTCCA	484	3T36	Regular PCR Condition II
NM_006663.2	PPP1R13L#6	GAAGTTGTGGAGAGGG AGTGTT	CCTGGATTCATGTAGCA AACATA	580	3T37	Regular PCR Condition II
NM_021158.3	TRIB3#2	TAGGACCTGACCCTTCT GTTTCT	TGAAGGTTTGGCTCAGT TCAG	622	3T37	Regular PCR Condition II
NM_001014432.1	AKT1#0	ACATTCAGCTTCCTTTG CTTCTC	CCCACACCAGGAAGCC ACTCAGAT	394	3T38	Regular PCR Condition II
NM_003223.1	TFAP4#6	TTTTCTGGGCTATGTGT TTTGG	TCATAAAAGAGACCCA AATGACATCGT	433	3T38	Regular PCR Condition II
NM_003200.1	TCF3#17	CCCTGATACCCACTCTC TTCTTTA	GTGTATGTTTTGTTGCT TGCTTTC	722	3T39	Regular PCR Condition II
NM_006663.2	PPP1R13L#10	CACACACAACATTTCA GGTGGTT	CAATATAACGGTTTGTT CCTGTTG	435	3T39	Regular PCR Condition II
NM_004964.2	HDAC1#0	CTGTCGCAGACCTTGGT ACA	ATCTTCCCATCAAGATT ACCTCAC	550	3T40	Regular PCR Condition II
NM_181715.1	CRTC2#0	TTAGAACTACTCTTCCC AGCTTGC	GAGGAGATCACAAACT CAGAGGAG	890	3T40	Regular PCR Condition II
NM_021649.3	TICAM2	TCCAATTATCTGTTTG TCGTTTA	GCTCCATAGGTTTCTTT AAGGTGA	1033	3T41	Regular PCR Condition II
NM_005921.1	MAP3K1#2	CAGTGTTGTTTCAAGGT CCTACAT	ACCGCACAAATACTTCT CCTTTAG	1163	3T41	Regular PCR Condition II
NM_020870.3	SH3RF1#3	CCAACCATTATTGTGCA ACAGG	AGTGATTGCTTGGTGA AACTGG	989	3T42	Regular PCR Condition II

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_024782.1	NHEJ1#0 to NHEJ1#1	GAGAACGTAAATCCAT GCCTTCTAT	CTGATTGGAGAAGAAT TTCAAACAA	1141	3T42	Regular PCR Condition II
NM_015055.2	SWAP70#1	TCCAATAATACCAGG TTCTTTCT	CTCTCATTCTTTCTTCCT TTCTGG	705	3T43	Regular PCR Condition II
NM_014829.2	DDX46#5	TGAACTGATGGATGGC TGGAGTAATTG	TTGTAGCGGGAGCCTG AATAAATCAAC	1079	3T43	Regular PCR Condition II
NM_024528.1	NKAP#0	CGGCTTATTTATATTGA TGCACAC	ATAGTCAGAAGCGGAA TGAATGA	685	3T44	Regular PCR Condition II
NM_016734.1	PAX5#4	GTGGTGAAATGCCTAA CGAGTAG	CCAAGGACAAAGATGA GATGATTA	1120	3T44	Regular PCR Condition II
NM_032682.4	FOXP1#2 to FOXP1#3	CTTCTGATTCCTGGCT TCCTAT	CTGAAAGCTGAGAACC GATAGAGT	1409	3T45	Regular PCR Condition II
NM_002264.2	KPNA1#11 to KPNA1#12	ATAGCTTGTATGGTTGA AAGAGTGC	CATCTCCCTTGTCTGTA GTAGTTGT	1313	3T45	Regular PCR Condition II
NM_031466.3	TRAPPC9#20	TCCAGTGGATTTCCCT TTCTT	GATGAGCCCTTCTCATG TCTGC	607	3T46	Regular PCR Condition II
NM_031466.3	TRAPPC9#0	AGGCATGTACCACCAC GCTCAACTAAT	CCGGAGCAAGAGAACA GAGACTAGGAG	1187	3T46	Regular PCR Condition II
NM_002838.3	PTPRC#26 to PTPRC#27	TGTTGTTTGACATGGAA TTATGTTC	CCAAGACTAGAGAATG ACGTTTTATG	1514	3T47	Regular PCR Condition II
NM_002440.2	MSH4#15 to MSH4#16	AAACACATTCAGTTTA TCTTGACCT	TGCACATGGAGGCAAT TACTGAAAGAC	1920	3T47	Regular PCR Condition II
NM_002460.1	IRF4#7	GCATTCAGCTTGCCTTA GATGCTGTAAA	CTCAAAACAGTAAGAG GGCAGTC	1046	3T48	Regular PCR Condition II
NM_015247.1	CYLD#4 to CYLD#5	TGTTACTGTCATTCCTT GTTTCTCTT	TCTGATGAGTTAGAAA GAAAGGATCA	1891	3T48	Regular PCR Condition II
NM_014002.2	IKBKE#19	TCAGTGTTCCTTGAAAGC TAATTGTG	TCCCATGAAGATGGAC AGGAAGGAT	1548	3T49	Regular PCR Condition II
NM_015133.3	MAPK8IP3#1	CAGCCGTAATTGGAAA CAACAG	TTACAGAAACAGGCAG CAGTACA	587	3T49	Regular PCR Condition II
NM_178037.1	ERC1#0	TTTGACCAGTTTGTGTA GTTCTGTTA	AGCCAATAAAGGTAAA CACACGTAGA	1359	3T50	Regular PCR Condition II
NM_031483.3	ITCH#2 to ITCH#3	TTTCCAATAGTTTGTG CAGGATAAGCAGTT	TCAACCTCCAAGCTCA AGCAATCTTTC	1844	3T50	Regular PCR Condition II

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_000022.2	ADA#9 to ADA#11	GGGTGAACGTCAATGT GTTCTGACTAT	TCATGGTCTTCTTGAA GGAATAAATGT	1487	3T51	Regular PCR Condition II
NM_000234.1	LIG1#1 to LIG1#2	TACAGCATAGATAGGC AGGGTATTG	GTTCCAAAGGTTAATG GGAATTAGT	1112	3T51	Regular PCR Condition II
NM_000061.1	BTK#0 to BTK#1	AGTGTGCATCCATTATA CCTGAAAC	ATCCTGAGAGAACTGA GGGAATAAA	1259	3T52	Regular PCR Condition II
NM_000061.1	BTK#14 to BTK#16	CTCTCCCTTAATTCTTT CAGCATATC	AGAATGTGTGCAGCTA TCAGTCTTT	1903	3T52	Regular PCR Condition II
NM_001006610.1	SIAH1#0	ATGGTAGTTGATGCCC GGTAAATAGCC	CAGCCCAAATGAAACA TGACTGAGAAC	1121	3T53	Regular PCR Condition II
NM_007242.4	DDX19B#0	TAACATTCTCCTGATTC TACAACGCTTACA	CATTTATCACTGAGGA AGCACACA	1214	3T53	Regular PCR Condition II
NM_001556.1	IKBKB#1 to IKBKB#2	TGAGAGGTGGAGTGGT AAGGAGA	CTGATGATGACAGAAG TGAAAGGT	1932	3T54	Regular PCR Condition II
NM_003821.5	RIPK2#0	TCTAACATTGCTACTTT CATTTTCAGG	TAGGAGTAAGAGGGAA GGAGAGAAAG	1766	3T54	Regular PCR Condition II
NM_001250.4	CD40#0	CCACTCTTAATAAATGC CTGTCTCC	CTGGCATCTGTCCACAA TAAGAAG	1144	3T55	Regular PCR Condition II
NM_003200.1	TCF3#15 to TCF3#16	CAGGAGCACAAAGAGA TATGTCAG	AGAAAGAGTCCAGTCC TCCCACT	851	3T55	Regular PCR Condition II
NM_002503.3	NFKBIB#0	TGAGCGATTTCAGCATA TTATCATT	GTTAGAGGTCAGGAAG TTCAGCAT	451	3T56	Regular PCR Condition II
NM_006044.2	HDAC6#21	ATCTGTCCCTTTCTGCC ATCTCC	CATGGGTTCAAGTCCTG GTTCTG	784	3T56	Regular PCR Condition II
NM_001469.3	XRCC6#8 to XRCC6#9	GTGACTGCAACACTTG AAGTCAAAT	AAGTGTTTAGAGAGGA CTGGGAAAT	1605	3T57	Regular PCR Condition II
NM_033355.2	CASP8#1 to CASP8#3	CTTACTGAAGATAATG ACTGGGAGAATA	GAAACAAAGTAAACT GTCTCACAAAAA	1994	3T57	Regular PCR Condition II
NM_005732.2	RAD50#3 to RAD50#4	TTAACTTACCTTTGCCT GTCTGCTA	AACATTAGCTCCCTGAT AATTCAAGA	1446	3T58	Regular PCR Condition II
NM_006573.3	TNFSF13B#5	GGATGTTCCATGATTTA CCTAATTGT	TGAAACAGAAGAGCAA GAAATAAAGG	1306	3T58	Regular PCR Condition II
NM_021138.3	TRAF2#6 to TRAF2#7	CAACTAAGTTCTATAGC TTCACGTTCTT	CTGTTGATGTAATGTCT GCTTTAGG	1517	3T59	Regular PCR Condition II

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_004556.2	NFKBIE#0	AGTGAAAGAAGGAAAC AGTACATGC	CCTAAGGGTGGATTATT GGTAGATT	1138	3T59	Regular PCR Condition II
NM_145803.1	TRAF6#0	TCACCTGATTCCCTGCG TACTGCTTT	AGACTACTTTTGGGATG TTCCATGT	973	3T60	Regular PCR Condition II
NM_001068.2	TOP2B#15 to TOP2B#17	TAGGTAGCGTTGTGTGC TTTCATCAGG	GAAAGGCGATTTGTGG CTAGAACTTGAG	1533	3T60	Regular PCR Condition II
NM_005923.3	MAP3K5#19 to MAP3K5#20	GCAGCAAACACATCTT ATCTCCCTTTGA	ATGCCCAGCCTCATGTT CATTTCCTTAT	1655	3T61	Regular PCR Condition II
NM_032682.4	FOXP1#9 to FOXP1#11	GTGTTTCGGTTCATGGT AAACATAC	CCCAATCAAATACACC TAGAGATTG	1381	3T61	Regular PCR Condition II
NM_014550.3	CARD10#15	GGAGAAGGACATCTTT GCTGAC	GAAAAGAACAAGCCAG TATGTGTG	524	3T62	Regular PCR Condition II
NM_001252.3	CD70#0 to CD70#1	AAGATTGAATGTCTCCT GCCTGA	CTTCTTCTCCTGTCCCG TCTGTC	1510	3T62	Regular PCR Condition II
NM_030662.2	MAP2K2#10	TTCTGGGTTTCTTTCCC TCTCCTAC	TCTCCCTGTTTTGTTTT GTAACCTA	551	3T63	Regular PCR Condition II
NM_145109.1	MAP2K3#1 to MAP2K3#2	GAGGTACTCAAGATGT GCCCAGT	CTCAGAAACCTTCCTAC CAGCTCT	1043	3T63	Regular PCR Condition II
NM_001017963.1	HSP90AA1#10 to HSP90AA1#11	GCGACATTTAAGTTGTA TTTGACAGT	TTAGTGCCTAAGGTATC ACAGCATCACT	1046	3T64	Regular PCR Condition II
NM_005732.2	RAD50#9 to RAD50#10	TTTGGAACATTCTGAGG AGTAGTTAAT	AAATCATTAGGCATCC ACCTTACAGTCCT	1331	3T64	Regular PCR Condition II
NM_015133.3	MAPK8IP3#2 to MAPK8IP3#3	ATTTCTAAACAGACAC CAGAAAGCTG	GACTGAATTGTGGACC GAGCAGAAG	1932	3T65	Regular PCR Condition II
NM_015133.3	MAPK8IP3#4	TCTGGATGTGTCGTGTT CAGATATT	GGTTTGAGAGAGGATC ACTAAGCTC	1279	3T65	Regular PCR Condition II
NM_004180.2	TANK#1 to TANK#2	TGGAGCCAGTTGTATC TCATAAAT	CTTTGTTGAAATGCTTG TGATGTAG	1678	3T66	Regular PCR Condition II
NM_002908.2	REL#4 to REL#6	CTTTGATTTGTTATTAA TGTCAACTTGG	GTTATTAGCAGGACCA CTTCAAGAAATA	2069	3T66	Regular PCR Condition II
NM_002485.4	NBN#11 to NBN#12	AAGGCCAAGAAGTGAT AGAAACATA	CAGGTAAACAGCAACC TCTAAAGAA	2060	3T67	Regular PCR Condition II
NM_002485.4	NBN#14 to NBN#15	CTATTGGTTGTCTTTGA GTGGAGAT	TATAACCTTGTTGGCCT GAAGTAGA	1812	3T67	Regular PCR Condition II



Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_002908.2	REL#7 to REL#10	TTCTACTGATACTACTG ATTTGGGACAT	TAGGTGGTATCAAGAT TTAAAAGGATTT	2704	3T68	Regular PCR Condition II
NM_016123.3	IRAK4#9 to IRAK4#10	TGAGAGCACATGTTATT ACAAAGTAGATT	AAAACATCATGGGAGA GTATCTGTATTT	1869	3T68	Regular PCR Condition II
NM_016123.3	IRAK4#7 to IRAK4#8	GGCACATGGTTGTTCTC TCAGCATT	TTTTCCATATGCTGTCTG TGTAATAG	2256	3T69	Regular PCR Condition II
NM_005732.2	RAD50#11 to RAD50#12	TCTTTCTGTCCAATAGT CCTAGCAA	AGTCTTGGAATTAAA CACACATACA	1825	3T69	Regular PCR Condition II
NM_020870.3	SH3RF1#1 to SH3RF1#2	TAGAAGCCTAAATCAT GGCTGGTGCAT	ACCAAAGCCAGCAAAT GGAATAAACAG	1745	3T70	Regular PCR Condition II
NM_001167.2	XIAP4#2 to XIAP4#3	AAATGACAGTGGGATA GGGAATTGGGTAA	TGGTGACCTTGGAAGA ACATGCTTATCT	2118	3T70	Regular PCR Condition II
NM_001068.2	TOP2B#7 to TOP2B#9	AACAATTTACCTGTCCC TTCACATCCTCTT	ACCCACAGTTAATACG ATGAAAGAA	1911	3T71	Regular PCR Condition II
NM_001006610.1	SIAH1#1	TCCAAAGACGATTAAG GGAGTTCACA	CAGGGCATGGGAAAGA CTAATCCAGAG	2342	3T71	Regular PCR Condition II
NM_032682.4	FOXP1#12 to FOXP1#13	ATGTGGACTGTTAGGCT GAATTTAC	AGGATGGAAATTATGA TACTGCTGA	2294	3T72	Regular PCR Condition II
NM_032415.2	CARD11#1 to CARD11#2	AGGAAACGTACAGTAT GACACCATTT	AGAAAGGAAGATTAAG AAGGCAAGAT	2725	3T72	Regular PCR Condition II
NM_005732.2	RAD50#13 to RAD50#15	AACACCATCTAAGCCA AGTGAATAAG	GAAGACTGATGAAGAC TCTGTCTCTAAA	2282	3T73	Regular PCR Condition II
NM_012092.2	ICOS#1 to ICOS#3	ACCATCTGCCTCCAATA TGAAAGCTACC	TGAATGACTGAATGAA CCCTTCAACAAA	2913	3T73	Regular PCR Condition II
NM_005591.3	MRE11A#10 to MRE11A#11	ATCCTGGAGGTATGAA CGAGAAATA	ATACTATCCATGGGGA ACAAAACAC	2070	3T74	Regular PCR Condition II
NM_005732.2	RAD50#19 to RAD50#20	AGACCTGTAGATTCCTT CACACTGGCTTA	GACAGAAGGTTGAGAT AAGAAGGGAGCAT	3055	3T74	Regular PCR Condition II
NM_024782.1	NHEJ1#4 to NHEJ1#6	AGATATACATTTGGAG TTGCCCTTC	TGGTAGAAACCTGAAC CTACAGAAC	2290	3T75	Regular PCR Condition II
NM_032415.2	CARD11#8 to CARD11#9	ACCTCTACTTGTGAGGA AGGATTCA	AGAGAGACAGAGTGAC AGATGAGACA	2622	3T75	Regular PCR Condition II
NM_006785.2	MALT1#10 to MALT1#12	TATGCTCACATCAACCT GAAGAAA	CATTAAATAGCAGAAG TGTTGCTGAA	2236	3T76	Regular PCR Condition II

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_013314.2	BLNK#13 to BLNK#14	TCTAAACATCCAGGGC ACTATTATC	GACAAGTAGAAATGAG ATGGAGGAA	3040	3T76	Regular PCR Condition II
NM_145803.1	TRAF6#3 to TRAF6#4	CCTCGGCAGATGATGT CCAAAGTAGAT	TGCTAAGTATGCCTTTG CTTCTGCTCA	2976	3T77	Regular PCR Condition II
NM_013254.2	TBK1#19	TACCATGCTGTTCCAGT AAGAAATAG	ATTTATTGGTGTGTTT GCTAGAGGT	2021	3T77	Regular PCR Condition II
NM_005591.3	MRE11A#13 to MRE11A#14	TTAGGATGGTACGTTAT CTCATTGTGT	GATTACCTTGGTCTTTC TAATGTTGG	1743	3T78	Regular PCR Condition II
NM_001068.2	TOP2B#4 to TOP2B#6	AGAGATGAATCAGTGC CTTCCA	TGTCTTTGACAGGCTCT TCAGG	2901	3T78	Regular PCR Condition II
NM_001014432.1	AKT1#11 to AKT1#12	AGATCCAGGTGCTTTG AAGGTCTTGAG	CCTATCTGTCCTTCTG GTGGTCTGTC	2022	3T79	Regular PCR Condition II
NM_004964.2	HDAC1#4 to HDAC1#6	AATAGGCAGGTCTTAA CCTTTCCT	ACCAGCTTTAGTAAGG AGAGATTCC CAAACATTCAGCTTCA	2430	3T79	Regular PCR Condition II
NM_021138.3	TRAF2#3 to TRAF2#4	AAGAGAGTGGAGACGA GGACACACTGATCTGA	AAGTCAGTAACAACAT TT	2487	3T80	Regular PCR Condition II
NM_002468.3	MYD88#0 to MYD88#4	CAACCTACTAGCACCA TCACCAGAC	GAGAGGTAAGTAGAGC ACAGATTCTT	2984	3T80	Regular PCR Condition II
NM_002838.3	PTPRC#8 to PTPRC#9	ATGTTAGGAATGAATG AGGGCTTA	AGAACATGAAGAGAGA AGCAATTTT	1820	3T81	Regular PCR Condition II
NM_002440.2	MSH4#4 to MSH4#5	GCCACTTACCTAGCATG TGTTTAAGAAAGCAGT	ACTTGATTTTGGTGAAA CATCTGAC	2234	3T81	Regular PCR Condition II
NM_002838.3	PTPRC#11 to PTPRC#12	TAGTTTGGAGTTCCTT GGAACAAT	GTGATTCCATTACACAT CAGAGCTT	1855	3T82	Regular PCR Condition II
NM_002838.3	PTPRC#4 to PTPRC#6	GTGTTTATGTTGGCTAT CTGGCTAT	AAGTGCTATTCCAAAG TGAGGTATG	2239	3T82	Regular PCR Condition II
NM_020870.3	SH3RF1#5 to SH3RF1#6	TTCCCTCCTCCCAAGGG TGATTACTTA	TGTTGTTGAACCTTCTC CCATTAAAGCA	1978	3T83	Regular PCR Condition II
NM_003998.3	NFKB1#15 to NFKB1#17	GCCAGTCCATGGGACA GTAT	TTCTGGGGCCTTCTGAT ATG	2276	3T83	Regular PCR Condition II
NM_005923.3	MAP3K5#12 to MAP3K5#13	TTCCCTGCTCTGTTGAA AGGATGTGTA	CTAACGCTTGGTGCTGT GGAATAAGAA	2803	3T84	Regular PCR Condition II
NM_005923.3	MAP3K5#28 to	AGTCAAGGTTTACATTA	AAGCAGTATTCTCCATT	2443	3T84	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_001556.1	MAP3K5#29 IKBKB#19 to IKBKB#20	TGAATAGAGTTTGTGCT GAAAGTATTAGTCAGT GGGTTGGTG	AAGATGGTCTTTGC AACTGTCTGTTTAGGAG AAGCTGAA	2573	3T85	Condition II Regular PCR
NM_139276.2	STAT3#20 to STAT3#22	TGCCTGGGAGATCAAA TAGTATAAA	GCTCAAAGATAGCAGA AGTAGGAGA	1818	3T85	Condition II Regular PCR
NM_001556.1	IKBKB#14 to IKBKB#17	GCCTACCACATCAGTTG ACATTAG	GTAGCCACACGAAAGT AATACACAG	2030	3T86	Condition II Regular PCR
NM_031466.3	TRAPPC9#1	CCGGCCAAGACAAGTT CTATTATCACC	TTATTACAGCCCATCT CAACTAAA	1422	3T86	Condition II Regular PCR
NM_021138.3	TRAF2#0 to TRAF2#2	GACTGTTCTGGAATTGA GGTGTAAC	GCACTACTTGAGTTTCT AAATGGACATA	2039	3T87	Condition II Regular PCR
NM_016734.1	PAX5#0	GAAATCTGCTCAGTGG ATATGTGAT	ATATAAACACACAGGC CCTAACTTG	1899	3T87	Condition II Regular PCR
NM_001033855.1	DCLRE1C#9 to DCLRE1C#10	TGAGACTCTGCCTACA ACAGATTT	TCCATGAATAATGAGG ATGAACTG	1543	3T88	Condition II Regular PCR
NM_001033855.1	DCLRE1C#13	CTCCACTGATACTCTGG CATTTATT	CACCGTATTCACATCAA GGTTAAGT	2326	3T88	Condition II Regular PCR
NM_003037.1	SLAMF1#5 to SLAMF1#6	AAGTCTTCTTGAGTCTG TGCTTCTC	TGTTATCAAGTAACGCT CTGTTCTG	2171	3T89	Condition II Regular PCR
NM_004619.3	TRAF5#8 to TRAF5#9	AAGTGATAGGGCAAGA GGAGAAACAACA	GCTTTGAGTCTAAATCC AGGTCAATA	1829	3T89	Condition II Regular PCR
NM_000431.2	MVK#2 to MVK#3	TCGATTTTCTGTGTTCT GTTGTTTA	ACTCCAGCTCTTTCTAC CATACCAT	2132	3T90	Condition II Regular PCR
NM_000431.2	MVK#8 to MVK#9	AATTATTTTAGCAGCTC TAGTGGGAAG	AGAATAATCCAGAAAG GGGCATCT	1965	3T90	Condition II Regular PCR
NM_000270.3	PNP#2 to PNP#5	CTCTGGCAGTATGGCTT GTATTATCT	GAATCTTTTCCTTTCTG CTACAACCT	2553	3T91	Condition II Regular PCR
NM_000431.2	MVK#0 to MVK#1	TAGAGATCTTTGCTCTT CTCATTGG	TCTCTGTAGGCTCTTAG CACACCT	1421	3T91	Condition II Regular PCR
NM_005657.1	TP53BP1#17 to TP53BP1#19	TAGCATTGTGTTATTAT GGCATCTTT	AAATTTCTGACTTTAGA GACACTGGAA	1999	3T92	Condition II Regular PCR
NM_002755.2	MAP2K1#1 to MAP2K1#2	GGTAAAGCATGTTGGT GATAGTCAT	ACAGCATTGTACACAA GAAATGGAT	2408	3T92	Condition II Regular PCR
NM_014959.1	CARD8#1 to	CAGAAAGTCTTATGGA	GGGATAACCTGGAAAT	1658	3T93	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_001469.3	CARD8#3 XRCC6#10 to XRCC6#11	ATTTGGTGT TTAGGTGCTCTCTCTTC TGGTTCT	ATAATCGTC ACAAACTTAGGGCTCTT TATTCAGG	2805	3T93	Condition II Regular PCR
NM_000234.1	LIG1#20 to LIG1#22	TAGGGCTTATTGTCTTT ATTCTCAC	ACACACATTCTGACAT CTTTCTATC	2428	3T94	Condition II Regular PCR
NM_001244.2	TNFSF8#2 to TNFSF8#3	AACGGTAATTGTCTCCA TCAAAGT	ATACCCTGTGTAGTTTG TCTTGGTC	2183	3T94	Condition II Regular PCR
NM_014550.3	CARD10#11 to CARD10#14	AAGAATGCTGAACTGA ATCCAAGTA	GCACATAGTAGATGAC CAATTAATCA	1870	3T95	Condition II Regular PCR
NM_145912.5	NFAM1#4 to NFAM1#5	GAATACAAGGCTCTAC TGGAGGTC	AACTCAGATCAAGTCC TTTGGTG	2255	3T95	Condition II Regular PCR
NM_001469.3	XRCC6#2 to XRCC6#4	GATCTTGCCTTATTTTA GTGCCATA	ATGTATTGCTTCTGGTT TGTTAAGC	2046	3T96	Condition II Regular PCR
NM_005080.2	XBP1#0 to XBP1#1	CACGCTCATAGTACAA ACTTTAGAAATGGA	GAAACAACCTGGGATG GGAAGCAAATA	2302	3T96	Condition II Regular PCR
NM_013254.2	TBK1#7 to TBK1#9	TATGAATTAGAAATGG ATGTTGTTGC	ACTATTTGTTCTGTCTC ACAAGGTCA	2008	4T01	Condition II Regular PCR
NM_003998.3	NFKB1#8 to NFKB1#9	AACCAGTTTTATTTTTTC AGCATGTTTAT	AAGACAAATTCTCAAT GTCTAAATCTCA	2621	4T01	Condition II Regular PCR
NM_145331.1	MAP3K7#14 to MAP3K7#15	TCTCTGCTTCTCCCTTT CCCTGTTAAG	CCTTTCAAATACCAGGT TGGTTCCATTT	2119	4T02	Condition II Regular PCR
NM_005657.1	TP53BP1#7 to TP53BP1#8	TGCTATTGTAGTAGTCC ATTCGTTG	TGTGTAGGTCAACAAGC ATTCTAAAG	1303	4T02	Condition II Regular PCR
NM_152866.2	MS4A1#0 to MS4A1#2	TATGCAAGGTGTCCTCT ACAAAGATA	TTCCCATGAACATACTT CAGATAGAC	2472	4T03	Condition II Regular PCR
NM_001278.3	CHUK#9 to CHUK#10	CACTTTGGAGAATGAG TGAGCCTTGTTTA	CATTTGAACATCAAGC AGTATTCACAGGA	3055	4T03	Condition II Regular PCR
NM_014829.2	DDX46#0	ACCTACCGGGTCTTCAA ATCTCACCTC	CGAAGTAAATGCCAC GCAACAAGTAT	1356	4T04	Condition II Regular PCR
NM_007162.1	TFEB#0 to TFEB#2	CAACTGCAATGAGTGA AGAAGACAGAACC	CATTAGTTCCACACCTT CCCATAGACACA	2110	4T04	Condition II Regular PCR
NM_024782.1	NHEJ1#2 to NHEJ1#3	ATGTAATGGGTACTT GCCTATGA	CATCTTCCCTAAGTACA TCTCAAGC	1428	4T05	Condition II Regular PCR
NM_006573.3	TNFSF13B#0 to	TGTGGAAATGTAGAGT	AATACTTACACACGCA	2063	4T05	Condition II Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_020870.3	TNFSF13B#1 SH3RF1#7 to SH3RF1#8	GAGACAGAAC CCAGGAAACAGGAGCA AAGATATGGAA	CAGAGAAATG TCATTCCTGTGGTCCC TCTAACATGC	2179	4T06	Condition II Regular PCR
NM_021988.3	UBE2V1#2 to UBE2V1#3	CCCAAGGCCCGGAAGT CATATAAACTA	ACTACTGTGGAAAATG AAGACTGATTA	1754	4T06	Condition II Regular PCR
NM_000061.1	BTK#17	TCAGTGTGATTGTCAGT TTAATTTGC	AAGTCTTCTTTGATACC CAGTCCTCT	1917	4T07	Condition II Regular PCR
NM_000074.2	CD40LG#4	CAGATGAGGAACTGAA GCTCATGGAGA	TGAGAGTGAAGTCAAG CCAGGTTTCTG	2359	4T07	Condition II Regular PCR
NM_005732.2	RAD50#21 to RAD50#22	AACCTTCTACCCTTTAA CTCCCTGT	ACTGCACTGATGTTTGT TTCTCTCT	1618	4T08	Condition II Regular PCR
NM_001068.2	TOP2B#34 to TOP2B#35	GAAATGCTACTGCCAA ATTGTTTAT	AGCAGAGTGAAAGCTG TGGTAGAGTGG	1995	4T08	Condition II Regular PCR
NM_003821.5	RIPK2#9 to RIPK2#10	GTGGGATTGCCAGAAG AGAAACTAGAAAG	CTGTAAGCACATAGCC ATAAAGCACACAA	2940	4T09	Condition II Regular PCR
NM_006785.2	MALT1#7 to MALT1#8	AAGTCCTAAATGATAA GCACAGCAAT	CACTTCCTCCTCTATGC TAACTATGC	2390	4T09	Condition II Regular PCR
NM_005657.1	TP53BP1#11 to TP53BP1#12	GCAAAGGAAAAGAGTG ATTGAAATA	TAGGGAAACCAATTAC ATAGGAACA	1462	4T10	Condition II Regular PCR
NM_145803.1	TRAF6#1 to TRAF6#2	ATTGGTACTGTGAGCA GCATATTCCATCTT	CAGAGTCGGAGTCACA TCCTTATCTACTGC	2040	4T10	Condition II Regular PCR
NM_014314.3	DDX58#5 to DDX58#8	GCCATTCTTCTTTGGT TTCTGTTAGCC	TAAACAGAGAGAGGGT CAAAGTTCA	2365	4T11	Condition II Regular PCR
NM_006785.2	MALT1#3	TACTGTCTCATTGATAT GCTTTCCA	CACACACACAGAAGGA CAATTAAG	1258	4T11	Condition II Regular PCR
NM_005921.1	MAP3K1#3 to MAP3K1#5	TGACTGTCTTGTATGAT CTTCTTTGG	ACACACACTCACATGA CCTTTAACAT	2135	4T12	Condition II Regular PCR
NM_014314.3	DDX58#0	TGAAATGGTAAGCCAC AGACTGGAAGA	CTTCCTTTAAGCTCAGA CCGCACTTTG	1374	4T12	Condition II Regular PCR
NM_014314.3	DDX58#14 to DDX58#15	AAGTCCCTCTTTGGTG AGTTGTAT	GACATTCCAATACCTGC ACAGTGACCT	2063	4T13	Condition II Regular PCR
NM_013254.2	TBK1#3	TCCTAAGTGTATTGGTA GTCCTGAGTT	TGTGTGTGTGTGTTTCT AACAATGGTCTT	1330	4T13	Condition II Regular PCR
NM_014002.2	IKBKE#0 to	CACATGGAGCCCTTCTT	ACCTGAGTCCTGTCAGC	1985	4T14	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_006290.2	IKBKE#2 TNFAIP3#1 to TNFAIP3#4	AGGGTAG CTTTGCTGGGTCTTACA TGCAG	ATCTGTCC AACTGGCCGCAAATCA CTCTAC	2588	4T15	Condition II Regular PCR
NM_147200.1	TRAF3IP2#5 to TRAF3IP2#6	TTGGCTCTGCTCCAAGT TTCATACAATC	TGAATAGGGACATTGA GGCACAAAGAGT	2303	4T16	Condition II Regular PCR
NM_014314.3	DDX58#16 to DDX58#17	AAGAAATTGAAAGACT AATTGGAGGCCACA	CCACTATGTTTGTCTTCT TCTCCACTC	2690	4T17	Condition II Regular PCR
NM_005732.2	RAD50#5 to RAD50#8	GACAGGACATGGTGTT TGGAGTTAGAAGT	CATGAGAATAAGACAA AGTTGATGTTT	2651	4T18	Condition II Regular PCR
NM_001068.2	TOP2B#10 to TOP2B#14	AAATACCTTAAAATTG CACAGATTCC	GTGACAAAGCAAGACC CTGTCTCAACAATA	2596	4T19	Condition II Regular PCR
NM_001068.2	TOP2B#18 to TOP2B#20	GAAGAATGGTAAGGGA GCAGAGTGATTTG	AAGCGGTAGTTTGAGA ACAGAAACAAGGT	2260	4T20	Condition II Regular PCR
NM_002129.3	HMGB2#0 to HMGB2#3	GATTGCGTTAGAGATA AACCAGTTC	AATTCCTACAAGTTTGC TGTGCTAC	2589	4T21	Condition II Regular PCR
NM_145725.1	TRAF3#0 to TRAF3#1	GACCAGGCCAGTCTGA GTTGTAGCAT	CAGAGTGCCGAATGCA AACTATGTGA	2723	4T22	Condition II Regular PCR
NM_015055.2	SWAP70#0	TCTTGGTGTATTATTGTT CTCTCCAAT	AAACCGGACATTCGGA TCTAAAATATGTA	2387	4T23	Condition II Regular PCR
NM_032415.2	CARD11#10 to CARD11#11	CAGCATAGCAAGACAC CATCTCTAT	TCTCTTTGTGAGGACAC TAATGGTT	2475	4T24	Condition II Regular PCR
NM_032415.2	CARD11#13 to CARD11#15	GAACATCTGTGTTGGA GACATTCA	CTCTTTGTAGGTTCTGT TCTCATAGG	2525	4T25	Condition II Regular PCR
NM_005657.1	TP53BP1#23 to TP53BP1#26	AAGGAGGCATAAGGTA GCAAATAAG	CCAGTTACTACAACCA AAGAGATTCA	2602	4T26	Condition II Regular PCR
NM_002758.3	MAP2K6#11	GCCAGCCTAGCTCTG ATAGGGATACT	TCCACTGATGAGGACA GGGAAAGAAAT	2648	4T27	Condition II Regular PCR
NM_014550.3	CARD10#6 to CARD10#8	TAAGTGATAGCTGCCA TTCTCCTTAC	TTCTCCTTGGGTATAGG ATCTTCA	2593	4T28	Condition II Regular PCR
NM_015247.1	CYLD#8 to CYLD#9	TTAACCAAAGCCTACTT TCCACTTA	CAGCAAATAGAACACC ATGTAAGGCAAA	2326	4T29	Condition II Regular PCR
NM_080911.1	UNG#3 to UNG#5	TTGTTTGTATTATGTTT GTTTGAGG	GCCAGTTGCTTTGCTTT CCTCATACAC	2020	4T30	Condition II Regular PCR
NM_015055.2	SWAP70#4 to	GGGATTCTATTGTCTGC	TTTCTCTCAGCTACTGT	2099	4T31	Condition II Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
	SWAP70#5	ATATCACTT	ATCACATGC			Condition II
NM_000234.1	LIG1#11 to LIG1#14	GGACCCAGCTCTGGAC AGTAAGT	CAGCGTCTTTCTATAACC TCTCCTG	2751	4T32	Regular PCR Condition II
NM_003821.5	RIPK2#1 to RIPK2#2	AGTTGCATAATTTACAT GAGGTCACA	AAATTGGCTAGGTCGA AGAAATAACT	2877	4T33	Regular PCR Condition II
NM_002440.2	MSH4#17 to MSH4#18	TCTTTCCATAAATGTGG CATACACGTC	CTTGTTAGCTGATTTGC TGCAGGATT	2263	4T34	Regular PCR Condition II
NM_145725.1	TRAF3#5 to TRAF3#6	TTAGTGTGTGACCCA GTTGCATTCT	CATCTCTGTGCTGGATG GATGCTAAA	2528	4T35	Regular PCR Condition II
NM_003809.2	TNFSF12#5 to TNFSF12#6	CATCTGTGCCATAGTGT GTATCAGTA	AAGGTTGTTACGCAAG GAGAAATAAA	2642	4T36	Regular PCR Condition II
NM_080911.1	UNG#6	TTCTAATGCAAATGCTG AATGCTCCAC	GATCCCAAAGTTACCA GAGGGCAAATC	2597	4T37	Regular PCR Condition II
NM_001192.2	TNFRSF17#0 to TNFRSF17#1	CCTTAGTGCATCACCTC TGATCTTCCTGTA	TAACGAAGTGAAATAG TCAACGCTAA	2057	4T38	Regular PCR Condition II
NM_001250.4	CD40#6 to CD40#8	CTCTGACATTGGAAGA TTCTGGAGT	ACCACCACTTTGCTCCA CTTTCTAAACC	2756	4T39	Regular PCR Condition II
NM_021255.2	PELI2#3 to PELI2#4	CCTCAGAACAAGGATA GTGAATGTT	CGAGTTAGGCTTGAGT AGTTTCGTA	2189	4T40	Regular PCR Condition II
NM_007162.1	TFEB#3 to TFEB#6	TCCTTGAGGGCAGGGA CTACATCTTAT	ATTATTCCTGTGTCTCC AACTTCAGA	2246	4T41	Regular PCR Condition II
NM_006044.2	HDAC6#9 to HDAC6#17	AGACCCTAGAGCTGAG CCTGAAATTGG	CTTTCTCCAGTTCCTTC CATTATTC	2722	4T42	Regular PCR Condition II
NM_001571.3	IRF3#0 to IRF3#2	GAAATAACTAGGGAAA GAGGATGCTAC	GTGAAGACTTGGAATT TTCTCCTG	2181	4T43	Regular PCR Condition II
NM_002440.2	MSH4#13 to MSH4#14	CTGTGTGCATGTGTGTG AGTGAGAGAAC	GAATCTGCTCCAAACT GTTCTTGGGTTA	3161	4T44	Regular PCR Condition II
NM_002838.3	PTPRC#22 to PTPRC#24	CCTGAGGAAACTATGA ACTCTTTTG	TTTATACCAGCTTAATG AGGAATGG	2737	4T45	Regular PCR Condition II
NM_015055.2	SWAP70#9 to SWAP70#11	TGCTTTACCAGCTTTGT GAATATGAGCTT	AAAGCTGTTTCTTTTGT CTTTAGCGTA	2369	4T46	Regular PCR Condition II
NM_032415.2	CARD11#23	CTCAATCAATCAATCA ATCAATAAGG	AGATTTCTGCTGCTAAT TTGTCTTCT	2286	4T47	Regular PCR Condition II
NM_032415.2	CARD11#16 to	AACAAACAAGTGCTGT	TCCTGATACACTGCTTC	2933	4T48	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
	CARD11#18	ATAATGGTG	TGATCTTT			Condition II
NM_014294.5	TRAM1#10	TTTGCTACTTTCAGTTC ATTGTGTT	TTTCCTCAGCACATTTG AGAGC	2279	4T49	Regular PCR Condition II
NM_080911.1	UNG#0 to UNG#2	CACAAAGCGAATGAAA GAATAGG	TTCACCACCACCATAAC ATCTGACACC	2143	4T50	Regular PCR Condition II
NM_178037.1	ERC1#3	ACTCAAATGGCTGTAA AGGACGTAT	GAACAGGAGTCAGTTA AAGAGCAGAG	2738	4T51	Regular PCR Condition II
NM_139276.2	STAT3#0 to STAT3#2	GAGCATCTTTATCCCTA GTCACAGA	AAAGTTGTTTGATTTTC CATTCTC	3153	4T52	Regular PCR Condition II
NM_007372.2	DDX42#2 to DDX42#4	TCCATATACAGCCAATT TATACAGCA	GTAAAGCATCAGCTTG AAACAAGAGT	2824	4T53	Regular PCR Condition II
NM_139276.2	STAT3#3 to STAT3#6	CTGTGTAGTGTACCTG TGTAGTGA	ATCAGAATTCAATCTA GCTTTCGAG	2209	4T54	Regular PCR Condition II
NM_014959.1	CARD8#4 to CARD8#5	AATTGAATCATAGCCT ACGTGCTAC	GGGAAAGAACCATAAA CAAGATTTTC	3195	4T55	Regular PCR Condition II
NM_006785.2	MALT1#4 to MALT1#6	GATGTTAATAAGTTGTT TGCCTCGAT	CTGTGTCAATTTAATCA TGTCTGTCC	2130	4T56	Regular PCR Condition II
NM_000234.1	LIG1#5 to LIG1#7	TGGTAAGGAAAGACAC ACCATTTA	AGTCAACTCTGGGTGTT AGAAAGA	2426	4T57	Regular PCR Condition II
NM_152866.2	MS4A1#3 to MS4A1#5	GAAGGAAATGCAAGGA TACAAGATA	ATGTCTCTTGAAGCTA TGAACACTA	2898	4T58	Regular PCR Condition II
NM_014829.2	DDX46#21 to DDX46#22	TATAATGTGGGTAATGT TCCACCAGGCATT	CAGATTTCTTTACCAAG TACCAGTTTC	2077	4T59	Regular PCR Condition II
NM_001017963.1	HSP90AA1#0	CGCATACTACAAGGGA CAAGATGA	CTTGGTGTACAAATGT TGGCTTC	2133	4T60	Regular PCR Condition II
NM_003809.2	TNFSF12#0 to TNFSF12#4	ATTGGTAATGATGGGC TTCAGAACG	AAATTAGGTTGAGACC AGACCACGAAGAG	2983	4T61	Regular PCR Condition II
NM_006509.2	RELB#10	TTCCCTCAGTGCCTTAG TTTACTTAT	GAAGAGCTTGGATGCT TTATCTTT	2260	4T62	Regular PCR Condition II
NM_003921.3	BCL10#0	TTGACAAGACAAGGAC AGACTCCTCCA	CAGTCCCTAACGAAGC ATCTCCAAGAA	2939	4T63	Regular PCR Condition II
NM_001068.2	TOP2B#21 to TOP2B#24	ATTGAAAGCCAGATTG GGTCCAGACTA	AGACTGAGCTACCTTCT CACACCTGGA	3008	4T64	Regular PCR Condition II
NM_003998.3	NFKB1#19 to	AATTTGAGCAAGTTTAT	CCCACATCATGTTGTTT	2240	4T65	Regular PCR



Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NFKB1#21		ACAATTCATTC	TTAGTATTTAT			Condition II
NM_005923.3	MAP3K5#26 to MAP3K5#27	AAGAAATATCAGGACA CATCTCTGAA	TATACCCTCACATTCTG TTAGCCTTCAGC	2018	4T66	Regular PCR Condition II
NM_145331.1	MAP3K7#3 to MAP3K7#4	AGATGATGGAGCTTCTT GGTAAATGCTT	TATGTGCTAGGTGTTAG GGACACAGCAA	2013	4T67	Regular PCR Condition II
NM_001641.2	APEX1#0 to APEX1#3	TTCCCTCTTGCACATA GTTAGAAT	GTTAGGGACTTATCCTG TGCTTGTA	2930	4T68	Regular PCR Condition II
NM_000377.2	WAS#0 to WAS#6	AAAAGGTGGGTCTAAG CAGTCAAGT	AGAGTGAGTGCCTCCTT AAATTTTGTA	3543	4T69	Regular PCR Condition II
NM_002485.4	NBN#9 to NBN#10	CACAGGATGCTTAGGT AATAAAGGA	CTTTCTGTGCCTGTTTC TTATACTG	2815	4T70	Regular PCR Condition II
NM_006044.2	HDAC6#0 to HDAC6#2	CCCAAAGTCACATGGT TAAGTCCCCTA	ATGATCTGCCCTCCTAC TCATCAATCC	2441	4T71	Regular PCR Condition II
NM_013254.2	TBK1#12 to TBK1#18	GGCCTCTAAACAAGAA GAGCACAAATCTT	ATGACCCTTTACCACTG CTGAATCTATTG	3078	4T72	Regular PCR Condition II
NM_004346.3	CASP3#0 to CASP3#1	TAATTCATAGCTCAATT AAAAAGAGAGAGA	AATATTATATCAAATGT AAATGGCACAAAC	3453	4T73	Regular PCR Condition II
NM_016123.3	IRAK4#1 to IRAK4#3	AGGAATAATTTCTAA GTTTTTGTGTGT	TTTCTGGTATCTTACC ATTTAATCTT	3130	4T74	Regular PCR Condition II
NM_014829.2	DDX46#18 to DDX46#20	CAGCCTGTTTCATTGCA GTATAATTTGGTC	ATCCGTTAGGTTGTGGC ATTGCTACTTCT	3422	4T75	Regular PCR Condition II
NM_014314.3	DDX58#2 to DDX58#4	TTGCTAGAAGACCTAA AGTGTGGCTGACT	CGCATTGGGTAGCAC ACTAACTTCAT	3270	4T76	Regular PCR Condition II
NM_006044.2	HDAC6#3 to HDAC6#8	GGTCAGAGAGGTGATG GAGGACAGATT	CAGTCCCTGCCTCAGA GTGAAATTAGG	3468	4T77	Regular PCR Condition II
NM_020870.3	SH3RF1#10	TACAAACACTGGTAGG GAACAAGGATGG	TAATAATCAACTTGCCC AGGTGGCTACA	3285	4T78	Regular PCR Condition II
NM_021975.3	RELA#8 to RELA#10	AGTGTACACATCCCTT CTCATT	ACTAGCAAAATGTGTG CTCAGTGT	2535	4T79	Regular PCR Condition II
NM_001250.4	CD40#1 to CD40#4	ATGAACAGATGATGAG GAGTTGGAGGAA	CCTAGAAAGCCAGGTA AGGTGAAAGCAA	2228	4T80	Regular PCR Condition II
NM_199141.1	CARM1#4 to CARM1#5	AAACATTGAGAGTGAA GACAGACG	ACAGATGGGCAAATAG AAACAGTC	2816	4T81	Regular PCR Condition II
NM_005080.2	XBPI#2 to	ACATTAAAGCCACAAG	TTTCCAGTGTTTAGGAT	3462	4T82	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_007242.4	XBP1#4 DDX19B#2 to DDX19B#4	TCACCCTTTGC TTACACCTTTGTTTATT TAGGGACAAT	GGTGCCTAGC AAATCTTGTGCCTCAGC CTCCTCTTT	3253	4T83	Condition II Regular PCR
NM_012452.2	TNFRSF13B#3 to TNFRSF13B#4	ATGGATACCAAGGGAC GACTGTAAACG	TACTAAGGAGGCATGG AAGGGAATGTG	2176	4T84	Condition II Regular PCR
NM_139276.2	STAT3#9 to STAT3#12	TTATAGACAGCTTGCC TATTTACC	AACAGGTTGATGTTTCT AATTCTGG	2345	4T85	Condition II Regular PCR
NM_015055.2	SWAP70#7 to SWAP70#8	ATTGAATGTAAAGAAT GTTTGGCTTT	CTGCATATTTCTTCCTT ATTCTCAA	2680	4T86	Condition II Regular PCR
NM_145803.1	TRAF6#5	GGTGGGAGGGAGATTT ATGTGAGTGAA	CCCTACCTAGAGGGTG GTATGCAGTGA	2780	4T87	Condition II Regular PCR
NM_004964.2	HDAC1#7 to HDAC1#13	CAAACCTCGTATTGCTT TCTTGAG	GTTCAAAGTTAAGAAC GGGAAGAA	2742	4T88	Condition II Regular PCR
NM_030930.2	UNC93B1#3 to UNC93B1#6	ATATTCCATCTCAGTGC CCTCGACTCTCTC	CACACTCTGCTTCACTG ACTGTCCT	2189	4T89	Condition II Regular PCR
NM_014659.3	PPIP5K1#27	ATGAAGTGGGTCTTAG CACTCTCTCCTGA	TAGTGGGTAACTGCC ATAGGCTCCTCTT	3090	4T90	Condition II Regular PCR
NM_033355.2	CASP8#6 to CASP8#7	GAATTACTGTGGTATA ACGTGACTGTTC	TAAATAAGTGAAGTGG GCTAGACATAAG	3348	4T91	Condition II Regular PCR
NM_002460.1	IRF4#1 to IRF4#3	TCTGAGCAACGGTGTA AATCTGAAGGAC	GAGTGATCTCTGTGGTG TTAAATAAGAT	3110	4T92	Condition II Regular PCR
NM_015133.3	MAPK8IP3#5 to MAPK8IP3#7	CTTAGGAGCCTGGTAG ATGAAGCAGAAA	ACTTTCCTTTCATTACA AACAAAACC	3010	4T93	Condition II Regular PCR
NM_001278.3	CHUK#13 to CHUK#16	GACCACAATTCAACTC ATAACACATC	CCTCACGTTCTCTGTTA CTTTCTCTT	2504	4T94	Condition II Regular PCR
NM_007372.2	DDX42#5 to DDX42#7	GACAGAGCGAAACTGT CTCAACCAATAA	TTCCTGGTCATTCTACC TCACTTGACTG	3156	4T95	Condition II Regular PCR
NM_145331.1	MAP3K7#1 to MAP3K7#2	TGTTCACTGGCAAATCC AGATACTGTTG	CTACATAAACTACACA CACACATCTGC	3480	4T96	Condition II Regular PCR
NM_005923.3	MAP3K5#15 to MAP3K5#17	GTCACCTAATAGCTTTG GGATCTTGAGCA	CATTACTGTGTGAGAGA ACACCAACTGAA	3443	5T01	Condition II Regular PCR
NM_145331.1	MAP3K7#6 to MAP3K7#8	TTTAAGCCATTGTTTCT GTAAGTCATGTGG	TGAAGAATGACGCACC TGTAAACTCAA	3352	5T02	Condition II Regular PCR
NM_005921.1	MAP3K1#16 to	AAATGGTAGAATATGA	CTTAGTCTGGCCTACCT	3259	5T03	Condition II Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_000448.1	MAP3K1#18 RAG1	CGCCTAACTCTGG TCAGTGGGATATTGAT ATTGGTCTTA	TGAATGTGCTT CATCTGTAGCATCTTAC TCCAACCTA	3340	5T04	Condition II Regular PCR
NM_003037.1	SLAMF1#1 to SLAMF1#2	GTTCTTATAGACCACGA AGGACTTG	GCTCACTAAATGCACA TGGTAAACT	3220	5T05	Condition II Regular PCR
NM_005657.1	TP53BP1#20 to TP53BP1#22	CTGTTGGATCTCTAAAT TCCCTAACT	AAAGAAAGAAGTGCCT ATGTGTCAG	3461	5T06	Condition II Regular PCR
NM_015247.1	CYLD#12 to CYLD#15	TGTTACACACAGTGCTTC TTGATTGAGATT	GATCCCACTACAAACT GTCCCACTACAAA	3238	5T07	Condition II Regular PCR
NM_000074.2	CD40LG#0 to CD40LG#1	GAGAGAAGACTACGAA GCACATTTT	ACCAGTCTTCAGGTGTC CCTTCACTTG	2749	5T08	Condition II Regular PCR
NM_006084.4	IRF9#0 to IRF9#5	AACAATTCTGTCCCATA GAGTGTTGAAA	GCTTCAGTGTGATGGTG TTCTCCAAGAT	3257	5T09	Condition II Regular PCR
NM_005204.2	MAP3K8#4 to MAP3K8#6	TTCTCCTAGTTTAAAGGC AAATGAGCCAAT	AGACCTGGTGCATATC AAATAGCTT	3054	5T10	Condition II Regular PCR
NM_007372.2	DDX42#14 to DDX42#16	AAGTAGCCAAAGTTAC TCCTCTGGGTTTG	AGCCCTGAGACACCTA GTTACCAAATC	3218	5T11	Condition II Regular PCR
NM_003010.2	MAP2K4#4 to MAP2K4#5	GTCCCTGTCCATACAAT TAAAGAGTG	TCCTCTAATGTGAAGA AGAAACAACA	3285	5T12	Condition II Regular PCR
NM_001278.3	CHUK#19 to CHUK#20	TATTTTCATCTGTCTTTG CCACAAGGATTT	TGGCTTGTAATGTTTCAG ACTCCCAGATAA	3453	5T13	Condition II Regular PCR
NM_001198.2	PRDM1#3 to PRDM1#5	GGCTATCTTACTCCAGC CTAAACAGCAAT	GTAACCTTGGAGTTCCT TCTTTAATTCCA	3133	5T14	Condition II Regular PCR
NM_013314.2	BLNK#8 to BLNK#10	TAGAAATGTAAAGGTG GAGTCCCTA	CATGCTGAGGTTCCTGA GCTAGTTT	3328	5T15	Condition II Regular PCR
NM_002264.2	KPNA1#2 to KPNA1#3	TTGTCTACCTTTATGT AACTTCTGG	TGCAATGTAGTTGTCAG GAATATCA	3088	5T16	Condition II Regular PCR
NM_017544.2	NKRF#0 to NKRF#1	TGATAAAGTCTTGTGG GAGCAATTA	ACTATGTGAAATGAAC AAGGTGAGAC	3385	5T17	Condition II Regular PCR
NM_030956.2	TLR10	AACCTCTTGATGAATGT AGTCAGATG	TCCATACCAGGAAATA TACAGCTACC	3266	5T18	Condition II Regular PCR
NM_145912.5	NFAM1#1 to NFAM1#2	CTGCCCTCTTCTTTATT TCTCATC	TAATCTGGGGAGCTAG AAATGGTA	3498	5T19	Condition II Regular PCR
NM_000270.3	PNP#0 to PNP#1	TGGGAAGAACTCTGAT	AGTGAAATGCTAGGTC	3329	5T20	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_022461.3	AZI2#5 to AZI2#6	TAGGTTTACA TGCTACATATCAGATG GACAGTGTTA	AAGGAGTAGA AGAGATAAGTGTCCCTC ATGGTGAAAT	3159	5T21	Condition II Regular PCR
NM_145109.1	MAP2K3#9 to MAP2K3#11	TGAAGTCTGAGATGGT CAGATGTTAGGAA	CAGTAGCTTATGGTGTG GGTGAGC	2608	5T22	Condition II Regular PCR
NM_206937.1	LIG4	TCCCTCAGAAGCTCAG AAGTGAAGTGAAT	CTTTGGGCTATTGTCTT TTCAACCT	3337	5T23	Condition II Regular PCR
NM_003200.1	TCF3#4 to TCF3#6	TGTGCACTTACTGAGA GCCTATTGT	TTTCTCTCAAACAAGA CAGACAGA	3804	5T24	Condition II Regular PCR
NM_014829.2	DDX46#1 to DDX46#2	CTGGCATCCTTGCTGTT CCTTAAACTC	AAACACTGCCAACAGT TCATGGTAGGA	3778	5T25	Condition II Regular PCR
NM_002440.2	MSH4#9 to MSH4#12	TATAATAAGCAGTGGA TGGCACTAA	AATAATAAACTGAACG AAGCCCAGGTAAGC	3736	5T26	Condition II Regular PCR
NM_014002.2	IKBKE#11 to IKBKE#13	TCAACAATGTCACAAC TTGGGTAAGCA	TCTCTTTCCAGGACCAC CTCTCCTACA	3527	5T27	Condition II Regular PCR
NM_014002.2	IKBKE#14 to IKBKE#18	CTTCTAAGCCCACTTCA TCCACCAACTC	GCTGTAAAGTGAACCCT ACACCTCCTGA	3683	5T28	Condition II Regular PCR
NM_005923.3	MAP3K5#8 to MAP3K5#9	CTGCTTTCCACGTTTAG GAATTTGACTG	GCATTGCTTAGGAAGT ACACTCCACCAC	3655	5T29	Condition II Regular PCR
NM_005657.1	TP53BP1#3 to TP53BP1#6	GCTCTGATTAAAGTGTC CCAAACTA	CTTCCATATCACAAACA AGTCTGC	3615	5T30	Condition II Regular PCR
NM_006290.2	TNFAIP3#5 to TNFAIP3#7	GTGTCAGATCATGTTGC GTGAA	CTACAAACACTCTCTGA ATACGTCCAT	3601	5T31	Condition II Regular PCR
NM_001068.2	TOP2B#1 to TOP2B#3	TGGATTGCTGGAGACT GCTCTA	CCGATAGGGAAGTTCT TTGGAA	3585	5T32	Condition II Regular PCR
NM_002198.2	IRF1#2 to IRF1#8	CTCAGAACAGTCAGCC CACCCATTTAGT	TGATACACTGGTCTCAG AACCTCATCTT	3819	5T33	Condition II Regular PCR
NM_031483.3	ITCH#18 to ITCH#20	GGGCATAGATGAAATA GATGGGCATTGT	GCTGTCCTAATGAGTTA GCTGTGGGTTTC	3738	5T34	Condition II Regular PCR
NM_031483.3	ITCH#21 to ITCH#22	GGGCTGAGGATTTAT GGTTCTAACAAG	AACGCTGAGTAGAAAT CACTGGGAGATA	3754	5T35	Condition II Regular PCR
NM_005923.3	MAP3K5#3 to MAP3K5#5	TGGCAGAGTGGAGAGT AAATTAGAGGACA	CCATCTGGTGTGAGTG TATTTGCTTAAAGAT	3789	5T36	Condition II Regular PCR
NM_015133.3	MAPK8IP3#13 to	AGGATCTGAAGGAAAT	AGTAAGACTCTGGTTCT	3495	5T37	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_014829.2	MAPK8IP3#19 DDX46#3 to DDX46#4	TGGCACTGAGA AAGTGATCGTCTTGTTT CTGCCTCCTC	GGGAGCAAACAA GGTGCAGAGTTTCTGTA TGGAATGACG	3788	5T38	Condition II Regular PCR
NM_013975.2	LIG3#0 to LIG3#1	TTTCCTGTATCAGAACT CTTTCATGCTGT	GGAAGGCTTAGAATTA GCCATTACCAGTC	3464	5T39	Condition II Regular PCR
NM_006785.2	MALT1#16	TAATGATAGCTGGCGTT TCTCAGTTTCAG	CCATTTATCTACTGTTT GCCTTTGTTGCT	3649	5T40	Condition II Regular PCR
NM_021158.3	TRIB3#0 to TRIB3#1	AAGCAGTCTCACTT TAG TGCTTTTCT	GTTACTTCAGTTTCTCC CACTTCTG	3730	5T41	Condition II Regular PCR
NM_020661.1	AICDA#1 to AICDA#4	GGAAAATCCAGAGTGA CCAGATTA	GATGAAGAGACCCACG AGAGCCAATAG	3693	5T42	Condition II Regular PCR
NM_148910.2	TIRAP#0 to TIRAP#1	AGGCATTAGGAGAGAA ACAGAACTT	CCTCTAGGCTTCTAGGT TTGTGTCTTTAATGG	3678	5T43	Condition II Regular PCR
NM_014002.2	IKBKE#3 to IKBKE#8	CATGGGAACTCCTGTCT CTCTGGATG	CAAAGAAACACCCACA AAGAAA	3173	5T44	Condition II Regular PCR
NM_001571.3	IRF3#3 to IRF3#6	TTCATTAGTGTGTTGTTT GGCTGTT	AGTTGTATATAGCTGCA CAGATGGGTA	3323	5T45	Condition II Regular PCR
NM_001017963.1	HSP90AA1#2 to HSP90AA1#9	GATGGAATTTTCGTGTTG CCTCTGTAGAC	CACAACATAGTTTCTG TTTTAAGTTGA	3523	5T46	Condition II Regular PCR
NM_004619.3	TRAF5#0 to TRAF5#2	TCAGAGTCACAACAGA ATGACCATGTGA	CACCTACGACAGCACC AAGTGAGAGAG	3786	5T47	Condition II Regular PCR
NM_001198.2	PRDM1#0	ATCATTAGGTTGGAAC GGGTGTGTGTAT	ATGAGAAGGAAATGGT TTAGGGAAAGAGA	3465	5T48	Condition II Regular PCR
NM_013975.2	LIG3#2 to LIG3#6	TTCTTGGCATGACTTTG GTCTTTATTCTT	CTCAACACTCATACCCT ATCTGATCTC	3627	5T49	Condition II Regular PCR
NM_006871.3	RIPK3#0 to RIPK3#9	AAAAGGGTAACAACCC GGAAAGTAGAC	GTGGCACTCTTCCTTAA CTCGTAACTCT	3865	5T50	Condition II Regular PCR
NM_031466.3	TRAPPC9#11 to TRAPPC9#12	CAGCTTTGAATCACCCA TCTCAAGAAGA	CTCACTGGAGGAAGAC AGCAGAAAGGAG	3888	5T51	Condition II Regular PCR
NM_030662.2	MAP2K2#7 to MAP2K2#9	TAATTCAC TAGAGGCTC AGGCAAGGAGT	GGGTGTCTGTAGCTGG CATCTCTTCTT	3815	5T52	Condition II Regular PCR
NM_002755.2	MAP2K1#5 to MAP2K1#6	GCTCATTTCATCTCCTG ACAGTTGCTT	ATCAGTCTTGGCAGAA TGTACAGAG	3751	5T53	Condition II Regular PCR
NM_145331.1	MAP3K7#16	AATTGAGCTTCCATCAT	TCTCGTTCTATTCCTCT	3886	5T54	Condition II Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_000061.1	BTK#8 to BTK#13	CAGCTACTAAGG ATGCACATGACAGATG	GTTTGCCATTC CAGTATGTGACTCTGA	3799	5T55	Condition II Regular PCR
NM_032415.2	CARD11#19 to CARD11#21	CTCAGTAAATAGG GCACCGATTCACTCATT	AGGAACCAAATGA AATACCTGTCACCTTCA	3790	5T56	Condition II Regular PCR
NM_016734.1	PAX5#9	TACCTACTGAGA TGCAACTATCCAACCTCT	TGTTTCATCCTGT AAAGCACCGTACAATG	3709	5T57	Condition II Regular PCR
NM_002838.3	PTPRC#16 to PTPRC#21	GTCGTAATAGCA GAGGAAAGAAGCTAAA	TCAGTTATGGAAG ACAGCTTTCATCCTAAA	3872	5T58	Condition II Regular PCR
NM_004346.3	CASP3#4 to CASP3#5	GGATTGAGT CCAATTAACATCCATTT	GGTTATCA GTTGTATATCCTCTTAG	3904	5T59	Condition II Regular PCR
NM_003807.2	TNFSF14#1 to TNFSF14#3	TTACATAGC CAATGCACCCGACCTA	GTTGTTCTTCC ATTCTTCCTTCCTTTCA	3951	5T60	Condition II Regular PCR
NM_001167.2	XIAP4#0 to XIAP4#1	TAAACCTTTCT TGAACAGATTGTTACTT	ATCAGCAAGCA AGTAATTC AAGTCTCCC	3911	5T61	Condition II Regular PCR
NM_005921.1	MAP3K1#19	GACCAAGGGAAG AAGAATCAGAATTTGT	ACTGCATGCTATC GGGCTGAAAGTATGGA	3910	5T62	Condition II Regular PCR
NM_013975.2	LIG3#15 to LIG3#18	CCAACACGGAAG CTGTATTGCTTCTAGCT	AGTGTTC A A A G A CCTGAGTCCAGTCCAGT	3993	5T63	Condition II Regular PCR
NM_012092.2	ICOS#4	GGTTGGGAGATA TGAGCCTACTTGGGAT	AGTATGGTAAA ATCTTTACTGGCAAGGC	3548	5T64	Condition II Regular PCR
NM_003821.5	RIPK2#7 to RIPK2#8	GAGTCTTCAGAG AATATGAGCCAGGATT	TATGCTGAACC ATTACAGATCCAGCCTT	3678	5T65	Condition II Regular PCR
NM_003821.5	RIPK2#3 to RIPK2#5	CAAAGTCTGTGTT TATTGCTCCTAGAGTTA	CAGCCAGAAATA TTTCACTCTGCCTTCTC	3618	5T66	Condition II Regular PCR
NM_003348.3	UBE2N#1 to UBE2N#3	TTTGGCTCAGCAGT GCTAAATCTGTTGGGA	AACTAGAATGTG CAATGACATGCTCTTAG	3887	5T67	Condition II Regular PCR
NM_147200.1	TRAF3IP2#7 to TRAF3IP2#8	GATTGGAGCTGT GCACTCAAGTATGGAA	GGTGTCTGCTAC TAAAAGCAGAGAATG	3977	5T68	Condition II Regular PCR
NM_004504.3	AGFG1#6 to AGFG1#9	ATCAGAATAAA CTTGTTTGCAGTCTGTT	CAGAGCAGTC CATTGCCATTCACTTCA	3917	5T69	Condition II Regular PCR
NM_005732.2	RAD50#0 to RAD50#1	CAGGAGAACTA AATTATTGCTTGGGAT	CTAAGAAAGAGG TGTGTGTGTGTGTGTGT	3994	5T70	Condition II Regular PCR
NM_000234.1	LIG1#23 to	TGTATGACTGGA AGCAGCAAGAGTTTCT	GTATTGTTGTTT TTATTGAAAGAAATGA	3979	5T71	Condition II Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_004556.2	LIG1#26 NFKBIE#1 to NFKBIE#5	CCATAAAG GATGTGTTCCCTTCTAAC TCCAAGAC	CGGGATGAAT TGCTCCTATTTTCAGTCT CTTCTCAC	3909	5T72	Condition II Regular PCR
NM_014829.2	DDX46#6 to DDX46#8	GGAATAGCTTGAAGT GGAGCAATTAG	TACATGAAATGTTAGG AATAGCCAAATCT	4118	5T73	Condition II Regular PCR
NM_145331.1	MAP3K7#9 to MAP3K7#11	TCTGCACTCATTTCCTT GGTAACCTCAT	GGATCATTATTCCGGTT CCACAGCTATT	4167	5T74	Condition II Regular PCR
NM_013314.2	BLNK#4 to BLNK#5	ATCTCCTCTTGTTATTT GTTGTGGA	GTCAATAGCAGGTTGT AAAGAAGGA	4140	5T75	Condition II Regular PCR
NM_001033855.1	DCLRE1C#4 to DCLRE1C#8	AAGGATTCCACTTGTTT CTAGGATTT	ATGACCTTGAGCTAAC AACTTAGGAT	4041	5T76	Condition II Regular PCR
NM_001556.1	IKBKB#4 to IKBKB#6	GGTATTGCGCTACAAG TCAGAGTAT	TCAGAATCCACATGAA GACTTAACA	4185	5T77	Condition II Regular PCR
NM_002838.3	PTPRC#28 to PTPRC#31	AATAGAAAAGAGGCAC AGACAGAGA	GAAATAACAGCTAACA GGAGGTTTG	4088	5T78	Condition II Regular PCR
NM_005591.3	MRE11A#18	TGAAGCAGGGAACAAT CACTAATACAACA	GGGAGAGGATTAAGG TAAGCACACACAT	4040	5T79	Condition II Regular PCR
NM_001068.2	TOP2B#25 to TOP2B#27	TTGTATTTTCAGATTGTT CATTCACTCACCAG	AGCCAAACAGACCCTT TCCCACTCTAA	4186	5T80	Condition II Regular PCR
NM_178037.1	ERC1#6 to ERC1#8	CCTCTGTCCTCCCTTTA TTCTTTGTGAAG	AACTTTCTGACAATATG TGCCCTGTCTTT	4219	5T81	Condition II Regular PCR
NM_005921.1	MAP3K1#6 to MAP3K1#9	CATTTCTGGGAAAGTTG GATCAGTTCAT	GCTTGTCTAGCTCACCC TATTTGTTGTTG	4310	5T82	Condition II Regular PCR
NM_003998.3	NFKB1#10 to NFKB1#13	TTCTCCTCTGGTTTCTC TTCCTTT	ACAACCTATCATGCAA AAGTTCCTGA	4299	5T83	Condition II Regular PCR
NM_031483.3	ITCH#5 to ITCH#7	GCCAGTGGAAATCAAG AAACAACAATGG	AAACAAAGTGGACAGA GAAAGGGCTGAC	4352	5T84	Condition II Regular PCR
NM_002460.1	IRF4#5 to IRF4#6	TAAATGGGTTTCTTTCC ACGGGACTTCT	AAATGCCTCCAGGGAA TGGATAGTTTCT	4394	5T85	Condition II Regular PCR
NM_005591.3	MRE11A#0 to MRE11A#1	TTGATTCTCAAATAAT TCCTGAACCTTGC	TGTGGATTGTGGATATT TGCTTTTCACAC	4461	5T86	Condition II Regular PCR
NM_014829.2	DDX46#15 to DDX46#17	GCAAGGCTCTAAATAA CCTACAGGGAAAGG	ACATCCTTTGAAGTGCT AATGAGTGGTCTA	4667	5T87	Condition II Regular PCR
NM_015658.1	NOC2L#0 to	TTTGTGAGCTGGCGAC	TGCAGAGATCAAGGAG	4129	5T88	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_000162.2	NOC2L#5 GCK#1 to GCK#5	ATCAGT AGCTACTCTGCCCTCTG CTGCTCAC	TATGGACAGGA CCGGTTGTTAAGTAGTT TGGTCCTCACC	4100	5T89	Condition II Regular PCR
NM_005204.2	MAP3K8#1 to MAP3K8#3	TGCATCTGTTACATGCT CTCTCTGACTTC	ATAATGATTTAATGCA GTGGGTTTCTTCC	4287	5T90	Condition II Regular PCR
NM_006785.2	MALT1#13 to MALT1#15	CCTGATAATGTAGGAT AGTTCTTAGCC	ATTCTGGAGGGTAAGC ACACATAAAGTCC	4213	5T91	Condition II Regular PCR
NM_001068.2	TOP2B#30 to TOP2B#32	ACACTACCAGATAACT AAGGCCAAA	ACTGAGCTGACCAATC CCTCCACATAA	3165	5T92	Condition II Regular PCR
NM_014294.5	TRAM1#1 to TRAM1#3	TTGGTGCTTCGATTTAG GGACAGATTT	TTAGATAAGGAAGGAG AACAACAACC	2335	5T93	Condition II Regular PCR
NM_014294.5	TRAM1#4 to TRAM1#5	GTATGGGACCTGTAAA TGTTTGAGA	GGTAAGAAGAATGGAG GAAGGGCAAAC	2027	5T94	Condition II Regular PCR
NM_003808.2	TNFSF13#0 to TNFSF13#5	AAACAAGACAAGCTCC TCCCTTGAGAAT	GGAAACTTAAAGAGAA CCGAATCAAGACG	4747	5T95	Condition II Regular PCR
NM_005591.3	MRE11A#3 to MRE11A#5	GGGCTGACAGGAGACT TTAATTTGAACA	CACTGACAGGAGGCAA AGCATAACTGTA	4418	5T96	Condition II Regular PCR
NM_002485.4	NBN#0 to NBN#3	ACATTTCAATACAGATT GTGCTGTTC	TGATAGAAAGACATGA GATGCCAACT	4414	6T01	Condition II Regular PCR
NM_022461.3	AZI2#0 to AZI2#3	GATCTAAGTGGAATG TTAGGAGAAGAT	AGCAGAAATGCTTAAA GAGGTAGATAAAC	4445	6T02	Condition II Regular PCR
NM_012452.2	TNFRSF13B#1 to TNFRSF13B#2	AGGCTTCCCTTGAGAT CAGGTTTAGA	GCAGGTCCTTCTCCTG CTTTCTTCTT	4500	6T03	Condition II Regular PCR
NM_003921.3	BCL10#1 to BCL10#2	TGAAGGTGAGATCAAA GCAGTGAGGAA	CAGTCCATCCAGAAAT GCAACTCAATC	4992	6T04	Condition II Regular PCR
NM_000162.2	GCK#6 to GCK#9	CTGTTAGGAAAGAGGA CAGCCCTGAAAG	GAGCCAAAGCAATTCC ACATGAGAAGTA	4454	6T05	Condition II Regular PCR
NM_014314.3	DDX58#10 to DDX58#12	GGGTGAGGCCTGTTTAT AACCCTAAATGA	TCAATGAATAGTGCTG GGTCCATTTGTTA	4643	6T06	Condition II Regular PCR
NM_002200.3	IRF5#1 to IRF5#8	TCTCATAGCCCCTAGAT TTCATGTAGCTT	AAGGAGATGTGACAAG TGAATGTAATGTG	4874	6T07	Condition II Regular PCR
NM_006785.2	MALT1#0	AACTCCTTTAATTCTG GCAACAACCTCTA	TAATACAGCCATTCCA AACCTAACAA	2234	6T08	Condition II Regular PCR
NM_002755.2	MAP2K1#7 to	TTCAAGCCTTATCTGTG	GGTGAAAGAAGGGAAA	4993	6T09	Condition II Regular PCR



Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_007242.4	MAP2K1#10 DDX19B#7 to DDX19B#11	GCTGTTTAATG GAGAAGAGCTGGCTTT GCCTTTGAAATA	CCATTGCTTAAT TGCTAATCTTCCAAGG TTGTGTAAATA	4902	6T10	Condition II Regular PCR
NM_005591.3	MRE11A#6 to MRE11A#8	CATTGATGATCTTTACA TTCCCAATCCTG	AGCAGATTTATAGGCA CAGGAAACAATCC	4654	6T11	Condition II Regular PCR
NM_203351.1	MAP3K3#9 to MAP3K3#15	TAGGTAAGAAAGCAGC AGCCTATCAACG	GTGCAAAGTGTCTTGA GTGCTAGGAGAA	4617	6T12	Condition II Regular PCR
NM_005921.1	MAP3K1#11 to MAP3K1#15	TTTGGCTATGTAAGGA AATGGAGGGTTT	TCCTCATCTGTCCAATT TATCATGGCTA	4840	6T13	Condition II Regular PCR
NM_007372.2	DDX42#8 to DDX42#13	AGAACTTCGTTTGGGTT GTGACAGGTAT	CAGATGCTGTTGAAAG AAGAAGACCAGA	4906	6T14	Condition II Regular PCR
NM_013975.2	LIG3#8 to LIG3#14	TGAGGGAGTTCATTTCT ACCTTTCTGGTT	GCTGAATAACCTTAGG GAAGTCCTGTTTG	4560	6T15	Condition II Regular PCR
NM_007254.2	PNKP#0 to PNKP#6	AACTTTCTAGTGGATGT GGGAGGAG	CTCTGATGTAGAAAGT CTGAAAGCAC	3803	6T16	Condition II Regular PCR
NM_001278.3	CHUK#4 to CHUK#8	TGATCCATATAAACTTG AGCATCAG	AACAAAGACCACAGAG AAGCAAAGTCTGAGA	3289	6T17	Condition II Regular PCR
NM_001198.2	PRDM1#1 to PRDM1#2	ATGGTTTGAGGGAGAA TGAGAAATAGGAA	AGCAATGATCTTACAA TGTTCCACATCAG	4793	6T18	Condition II Regular PCR
NM_005732.2	RAD50#23 to RAD50#24	ATTATCAGGCAAATAG CCAGGTCAAGAAT	TCTTCAACAAATAAGA GGGAGTGACCAAG	4397	6T19	Condition II Regular PCR
NM_001556.1	IKBKB#8 to IKBKB#13	GTTTGTGCATGTGAACCG CTATATCT	GGAACCTAACCCCTTGCT TCTTATT	4366	6T20	Condition II Regular PCR
NM_002264.2	KPNA1#4 to KPNA1#7	TCTAGGTTGAGGTATTT CTTCTGGA	TATGAGCCTGGAECTA CACATATCA	4873	6T21	Condition II Regular PCR
NM_139276.2	STAT3#13 to STAT3#19	GTTCTTGGTGTGGAAGA GAGTAAAGTG	CACTACAATCTTTCCC ATAAGGAG	4869	6T22	Condition II Regular PCR
NM_173561.1	UNC5CL#0 to UNC5CL#6	AAAAGAATTGGTGTGA CTAAAGTGTG	GGACAGTAGCCATTCT CTGACTTTTA	5006	6T23	Condition II Regular PCR
NM_017442.2	TLR9#0 to TLR9#1	AAGTGTCTCTTAGAAT GGGGAGT	CTCAGAGTTAGCCATCT AGCCTTC	4896	6T24	Condition II Regular PCR
NM_181715.1	CRTC2#1 to CRTC2#10	AAGGATGGCTGAAGGA AATAGTGCT	AAGAGGAGACAAGATG GATAAAAGATGG	4135	6T25	Condition II Regular PCR
NM_080911.1	UNG#3 to	TTGTTTTGTTTATGTTT	GCCAGTTGCTTTGCTTT	2020	6T26	Regular PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_015247.1	UNG#5 CYLD#0 to CYLD#1	GTTTGAGG TTCATTTGTGTGTATGT GTTTACTGG	CCTCATACAC TTGTCTACTGGTCAGCT ACAATAAGG	2827	6T27	Condition II Regular PCR
NM_004031.2	IRF7#0 to IRF7#8	ACTGGTTCAACACCTGT GACTTC	TGCTGTGTACCTTTGGC TCTGAATTAGG	3445	6T28	Condition II Regular PCR
NM_052945.2	TNFRSF13C#0 to TNFRSF13C#1	GCAGGAAGAGAGGAGG AGACAGGTG	GTGGTCTGTAGTGTCTG TGCTTCT	2255	6T29	Condition II Regular PCR
NM_052945.2	TNFRSF13C#2	TGTGACTGAGTACGGA GCCTCTACC	GTGGTCTGTAGTGTCTG TGCTTCT	2255	6T30	Condition II Regular PCR
NM_006521.3	TFE3#1 to TFE3#4	CTTCATTCAATCACTGA CCACCACTCC	CTCAACACAGTCCAAC AAGGTCCAAAG	2785	6T31	Condition II Regular PCR
NM_024528.1	NKAP#5 to NKAP#7	TTGTAAGTTTGAATAAG CTGGGAAT	GATATAGCTGAGTTTG AGGCTGAGT	2585	6T32	Condition II Regular PCR
NM_182919.1	TICAM1	CCACCACACTGGCCTC ATAGCATTT	GAGATTGGAATTGTAA ACACCGTATC	2693	6TG33	Condition II Regular or GC PCR
NM_002755.2	MAP2K1#0	ACAATCTCATCAGCACT GAGTATCC	ACATTTAGAACAGAAC TGGGAGGAG	1389	6TG34	Condition II Regular or GC PCR
NM_007162.1	TFEB#7	CTAGAGCTACCCTATGC TTTCTTCC	GAGGTCATAAACACCA ACGTCTCCAAG	1953	6TG35	Condition II Regular or GC PCR
NM_015133.3	MAPK8IP3#8 to MAPK8IP3#9	TTCCTTTCTGTGTGAAA CAACCAAGTAGA	CATCATGCAGAACAAA GCAAAC	1661	6TG36	Condition II Regular or GC PCR
NM_015133.3	MAPK8IP3#20 to MAPK8IP3#25	TGTTTGCTCCCAGAACC AGAGTCTTACTAC	GAGCCTGAGTCATAGG TGGTACAG	1729	6TG37	Condition II Regular or GC PCR
NM_001014432.1	AKT1#6 to AKT1#10	GTATCAGGCGACGTGG TATCAA	GAGGAAATGAGGACCA GGCCAGTTT	1945	6TG38	Condition II Regular or GC PCR
NM_001569.3	IRAK1#10 to IRAK1#13	AAACCCATACGATTGA GTGACAAGGAC	ACTTCTGACCATGAGA ACTTTGACTT	2567	6TG39	Condition II Regular or GC PCR

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_015133.3	MAPK8IP3#10 to MAPK8IP3#12	CTACCCTCTTTGGAAGC GTTGTT	TATAGGTGGATCTCAGT GCCAATTTCT	2413	6TG40	Regular or GC PCR Condition II
NM_001014432.1	AKT1#2 to AKT1#5	AACTGAGGCTTGGAGA GAGGAAGAGATG	CACGGTGTGTAAAGCC CTCAC	2096	6TG41	Regular or GC PCR Condition II
NM_015133.3	MAPK8IP3#26 to MAPK8IP3#31	CCCTGTACCACCTATGA CTCAGG	ATTTCTGCATCGAGTT GGCAAGT	3498	6TG42	Regular or GC PCR Condition II
NM_145185.2	MAP2K7#0	GGAAGACGGAAAGGTA AAGACCTCAGC	AGTCCCTGAGATGACG AGAGTGGTAGC	1704	6TG43	Regular or GC PCR Condition II
NM_024309.3	TNIP2#0	GAGATTCAGACCCACA CTTAGCTC	CATTGCTCCCAGCATAG AGTTG	1700	6TG44	Regular or GC PCR Condition II
NM_015133.3	MAPK8IP3#8 to MAPK8IP3#12	TTCCTTTCTGTGTGAAA CAACCAAGTAGA	TATAGGTGGATCTCAGT GCCAATTTCT	1661	6TG45	Regular or GC PCR Condition II
NM_007254.2	PNKP#7 to PNKP#15	GTGCTTTCAGACTTTCT ACATCAGAG	CTCAAGGAGAAACAGC GTTTATTG	2325	6TG46	Regular or GC PCR Condition II
NM_145185.2	MAP2K7#8 to MAP2K7#10	GAGGGAGGAGAACATA AACCTGTCC	CAAACACCCACCAAG TACAATAAAATA	1743	6TG47	Regular or GC PCR Condition II
NM_005921.1	MAP3K1#0	CAAATCAGCAGCTTCA GGATGTAAGGTA	AGGCCAAATTCAAACCT CCAAACAGAAGT	2117	6TG48	Regular or GC PCR Condition II
NM_015133.3	MAPK8IP3#0	GTAAACAGATTGCAC GTAGCTGA	ATCCTAGCACAGAATT AAACGCTTC	2148	6TG49	Regular or GC PCR Condition II
NM_199141.1	CARM1#8 to CARM1#15	GTAAACTCCTGTAGTG CCAAATCTT	GGTTGTACATTCAAGTG TGAGGTG	3035	6TG50	Regular or GC PCR Condition II
NM_006663.2	PPP1R13L#0 to	GTTTTAGACTGGGTTTG	GACAGTGCTTGTAAG	3232	6TG51	Regular or GC

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
	PPP1R13L#5	GACTTCTC	AGGCATTT			PCR Condition II
NM_000234.1	LIG1#15 to LIG1#17	GTATTCTTGAGTGGTCT CCTGTGTAG	ATGACATCTGTTTGGGA AACTCTAA	3604	6TG52	Regular or GC PCR Condition II
NM_003200.1	TCF3#7 to TCF3#14	CAGGACATCATAAGAA CCTCAAACCT	GTCTTACCCACCCTCCT GAAGT	3653	6TG53	Regular or GC PCR Condition II
NM_000022.2	ADA#3 to ADA#8	ATGAAGTGGGTTTAAT CTGCCAAGG	CCAATCCCTAAAGTTTC TTCCCTCTTT	4189	6TG54	Regular or GC PCR Condition II
NM_014550.3	CARD10#4 to CARD10#5	AGTCACACCCTTCTCCA CTTAGCTT	CTTCTATTTGTAAGCAC TCCCTCTGT	1433	6TG55	Regular or GC PCR Condition II
NM_199141.1	CARM1#0	CCTCTCGTTCGCTCGCT AGTC	CGCCCTCTTTTCTCTGT CTGTC	694	6TG56	Regular or GC PCR Condition II
NM_005904.2	SMAD7#0	TCCTTAGCAGGCAAAC GACTTTTCT	CCCTTGTCCTTCTCTA CTTTCAG	857	6TG57	Regular or GC PCR Condition II
NM_052945.2	TNFRSF13C#0 to TNFRSF13C#2	GCAGGAAGAGAGGAGG AGACAGGTG	GTGGTCTGTAGTGTCTG TGCTTCT	2255	6TG58	Regular or GC PCR Condition II
NM_001080547.1	SPI1#0 to SPI1#1	AGACTTCCTGTATGTAG CGCAAGAGATT	AGCAGATAACCATGGA AGAAATGAACC	3249	6TG59	Regular or GC PCR Condition II
NM_019594.2	LRRC8A#0	GCTCAGTCTTCCTGTGT ATTAAATGG	AGTCTTGAAAGTATGTC GAAGGTGT	3114	6TG60	Regular or GC PCR Condition II
NM_003223.1	TFAP4#1 to TFAP4#5	GGTGGGTTCTGAGCGG ACTATCTTACC	CATATTGAGGGAAGGG ACAGTCTT	3065	6TG61	Regular or GC PCR Condition II
NM_014550.3	CARD10#0	AGGAATACCCTTTGAG AATTGTGG	GAGAGAACCCCAAGAG ACAAAAC	1290	6TG62	Regular or GC PCR Condition

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_001080547.1	SPI1#4	GTGAATGTGTAAGCAG ATGCAGTGT	GGGAGATCTGATTTAC ATACGGACTTGA	1414	6G63	II GC Rich PCR Condition II
NM_003639.3	IKBK#0 to IKBK#1	TGAAAACCCACTTTAG CATCC	ACCTGTGTCCTTTCTT GTAATAAAC	4706	6G64	GC Rich PCR Condition II
NM_001783.3	CD79A#1 to CD79A#4	ATCCAAAATCCAGAGA GTTACAG	AAGTGTAAGTAATTTG GTAGCCACAG	3035	6G65	GC Rich PCR Condition II
NM_030930.2	UNC93B1#9 to UNC93B1#10	GGACCCATACAGGGCT TAGTAAAGTTCGTAG	GGAAAGGGTAGTCACC GAGCGTACCTG	3289	6G66	GC Rich PCR Condition II
NM_021975.3	RELA#0 to RELA#4	CTAGATTGGGGTGGGT AGGACATTTTAAC	TTCCAGTGGTAAAGT GGGAGAGTACTGAAT	3445	6G67	GC Rich PCR Condition II
NM_020529.2	NFKBIA#0 to NFKBIA#5	GTTCTCTTTTTCTGGTC TGACTGGCTTGAAAT	AACCTTGACAGGTAGT AACTTTTCACCCACAT	3251	6G68	GC Rich PCR Condition II
NM_000162.2	GCK#0	AGGTGTACTGTTCTGGT TCAGATTTCAAG	ATTCTGGTAGGAGGC AAGGCATCT	1478	6G69	GC Rich PCR Condition II
NM_003639.3	IKBK#5 to IKBK#8	TAAGTGTACCCAGAGG AGATTTATAAGG	AGGAAAGATGTTTAAG CTCACTCTTAAC	3046	6G70	GC Rich PCR Condition II
NM_003639.3	IKBK#2	TAAGCCCTTTGTAGTAA ATGCTGTC	AGAAGTCCTCCAGAG AACTAGACACT	1153	6G71	GC Rich PCR Condition II
NM_003639.3	IKBK#3 to IKBK#4	ATTGAAGCAAACACGT CTTAAGCAAAGCTC	TTGTCTTATAAATCTC CTCTGGGTACACTTACG	2075	6G72	GC Rich PCR Condition II
NM_015658.1	NOC2L#6 to NOC2L#11	ACTGAAGGAGGAGCTA ATGCACTTGAGAG	GTTCAAGTGTACAGTTCA GCAATCAG	3491	6G73	GC Rich PCR Condition II
NM_145109.1	MAP2K3#3 to MAP2K3#8	CTTGCTGGCCACTGACT CTCTTTTC	CTGTGATTTCTCAACAA GCACCAAGAAC	4897	6G74	GC Rich PCR Condition II
NM_024309.3	TNIP2#2 to TNIP2#5	CTTGTCCTGCTTTGCT TCTCT	ATAGCCAAAGGGACCA AAGTGAAC	3594	6G75	GC Rich PCR Condition II
NM_005178.4	BCL3#6 to BCL3#8	GTCCAGCTCTGATCCTT TAAGGCCTAGTTTCT	AAAAAGATATCACACA CCACGTCCTCCTTAGA	2434	6G76	GC Rich PCR Condition II
NM_030930.2	UNC93B1#7 to UNC93B1#8	GAAGTGTGTATGTG AGAGAGAGG	CAGTGTGTCCATAAGA CTCCCTTCCAC	1660	6G77	GC Rich PCR Condition II
NM_005178.4	BCL3#2 to BCL3#5	AAATAAAATAAAATAA AAGGGTCCCTCTGGCT GT	GAGAAAACACTAGGCCTT AAAGGATCAGAGCTGG AC	1947	6G78	GC Rich PCR Condition II

Refseq#	Amplified Exons	Forward Primer	Reverse Primer	Amplicon Size (bp)	Primer Plate Well Position	PCR Condition
NM_000022.2	ADA#0	GCTTGAAAGTTGCTGG AGGAG	CTAAGCCGAAGGAAGA ACTCG	534	6G79	GC Rich PCR Condition II
NM_001068.2	TOP2B#0	AACAGCACGCTTGGAG GATTAC	ACACACTTGCATTATCG CCATC	1357	6G80	GC Rich PCR Condition II
NM_203351.1	MAP3K3#0	ACTTCCTTCTTGTTATT GGCTGGTGA	TACATAATTTTCAGGGAT ACCGCAAG	1202	6G81	GC Rich PCR Condition II
NM_001569.3	IRAK1#0 to IRAK1#6	TGTGCAGTCATTTGAGA TACTTGAGTTGG	ACTCACACAGGCTGAA AGCCCTA	2947	6G82	GC Rich PCR Condition II
NM_001569.3	IRAK1#7 to IRAK1#9	CTATTGAACGTGTCCCC AGCCATT	AAACAAGAGGAGAAGC AGTGAAGCAATTA	1830	6G83	GC Rich PCR Condition II
NM_014294.5	TRAM1#0	TATGTGAAGCCAGTAA ACCCAAACTGATCC	GAACCTCGATTTATCCA TCAGACCTTGTTT	1651	6G84	GC Rich PCR Condition II
NM_015658.1	NOC2L#12 to NOC2L#18	ACCGTGCCTAGCTGCTT ATCTCTTGTTTC	AAATAAATAATAAAGC CTGTCCCCTGTGC	4223	6G85	GC Rich PCR Condition II
NM_002198.2	IRF1#0 to IRF1#1	GTGCTTTACAATCTCTT CCCATCACAGC	AGGGAGAACTTTCATC TAGCCACAAACC	3880	6G86	GC Rich PCR Condition II
NM_006044.2	HDAC6#22 to HDAC6#27	ACCTTACACAGTGGGT GCTGCCTATCT	AAGTACCATGACCAC CACATTCAAGTTA	2930	6G87	GC Rich PCR Condition II
NM_002460.1	IRF4#0	ACTTCAATTCACCAGCC TAATAGATGCAA	AAAGAGAAACAGAGAC GCGGTGAGAGAC	2755	6G88	GC Rich PCR Condition II
NM_005923.3	MAP3K5#0	TAAGTCCTTCGGCAGTT GGCACTAATC	ACAGAAGCGAAACCGA GACACTGAAAG	2055	6G89	GC Rich PCR Condition II
NM_030930.2	UNC93B1#0 to UNC93B1#2	CTGCAGTGCTCTTTGAT GAGCTGTA	GTGTGAATCTGTTGCTG GAAACCAAATGT	1729	6G90	GC Rich PCR Condition II
NM_145109.1	MAP2K3#0	ATTATGCAGATGGGCA GACTGAGATCCTA	GGAGACTCAAGTTAAA TCCCAACCTGGA	1714	6G91	GC Rich PCR Condition II
NM_003348.3	UBE2N#0	CTCCTCACGATTGCTGT GAAGATGAAG	CGTATTCAGAAGAGAG AGATCGCGGAAG	1704	6G92	GC Rich PCR Condition II
NM_004504.3	AGFG1#0	ATTGTGTCTACCCTACT TGGCTCCAG	ATGCTTTCATCCTGCTA CTATTCCTA	1200	6G93	GC Rich PCR Condition II
NM_030662.2	MAP2K2#0	CGGAGTAGTCAAGTGG GTAAATTCT	CTTAGGAACTCTTCACC CTCATTTCT	1913	6G94	GC Rich PCR Condition II
NM_021255.2	PELI2#0	GTTCTCGGGATGGGATT GTAGC	CCGAGTTCTGGCCACTT CCT	429	6G95	GC Rich PCR Condition II

<b>Refseq#</b>	<b>Amplified Exons</b>	<b>Forward Primer</b>	<b>Reverse Primer</b>	<b>Amplicon Size (bp)</b>	<b>Primer Plate Well Position</b>	<b>PCR Condition</b>
NM_005921.1	MAP3K1#0	CAAATCAGCAGCTTCA GGATGTAAGGTA	TCTGCAAACAATAACA AACTCTCC	1532	6G96	GC Rich PCR Condition II

**Supp. Table S4. Performance Of Resequencing Chip On Individual Samples As Measured By Average Base Call Rate And Number Of SNP Calls Detected Per Chip Before And After Quality Filtering**

	Sample ID	Total Bases	Called Bases	Chip Base Call %	Before Data Filtering			After Filtering with SNP Explorer		
					Total SNP calls	Known dbSNPs	Novel SNPs	Total SNP calls	Known dbSNPs	Novel SNPs
<b>Patient Group</b>	S01	262703	262212	99.8%	809	170	1130	206	147	59
	S02	262703	260816	99.3%	1938	222	3603	156	122	34
	S03	262703	258833	98.5%	2718	301	6287	309	107	202
	S04	262703	261457	99.5%	1054	351	1949	206	143	63
	S05	262703	261474	99.5%	1191	190	2230	244	156	88
	S06	262703	261628	99.6%	995	157	1913	319	124	195
	S07	262703	260137	99.0%	2702	289	4979	176	146	30
	S08	262703	247658	94.3%	10573	929	24689	425	91	334
	S09	262703	262157	99.8%	943	138	1351	155	117	38
	S10	262703	260750	99.3%	2395	238	4110	169	146	23
	S11	262703	261316	99.5%	1303	177	2513	164	119	45
	S12	262703	260278	99.1%	1347	248	3524	344	126	218
	S13	262703	261437	99.5%	1133	198	2201	331	167	164
	S14	262703	260902	99.3%	1362	205	2958	349	136	213
	S15	262703	260290	99.1%	1807	234	3986	202	117	85
	S16	262703	259770	98.9%	2649	249	5333	173	111	62
	S17	262703	260873	99.3%	1173	193	2810	193	129	64
	S18	262703	261482	99.5%	1056	182	2095	192	123	69
	S19	262703	260782	99.3%	1905	204	3622	238	121	117
	S20	262703	261470	99.5%	883	190	1926	224	138	86
	S21	262703	260834	99.3%	1612	239	3242	364	149	215
	S22	262703	261224	99.4%	1544	209	2814	198	127	71
	S23	262703	258702	98.5%	2429	347	6083	380	135	245
	S24	262703	259747	98.9%	2272	256	4972	358	104	254
	S25	262703	257549	98.0%	3959	389	8724	354	96	258
	S26	262703	258630	98.4%	3086	284	6875	425	79	346
	S27	262703	257874	98.2%	3104	326	7607	442	98	344



	Sample ID	Total Bases	Called Bases	Chip Base Call %	Before Data Filtering			After Filtering with SNP Explorer		
					Total SNP calls	Known dbSNPs	Novel SNPs	Total SNP calls	Known dbSNPs	Novel SNPs
	S28	262703	258469	98.4%	3587	314	7507	320	79	241
	S29	262703	261393	99.5%	1499	205	2604	208	133	75
	S30	262703	258188	98.3%	3025	324	7216	389	105	284
	S31	262703	261052	99.4%	1218	188	2681	225	113	112
	S32	262703	259564	98.8%	3391	359	6171	216	113	103
	S33	262703	262085	99.8%	769	204	1183	167	121	46
	S34	262703	260035	99.0%	2591	266	4993	340	153	187
<b>Healthy Control Group</b>	S35	262703	259331	98.7%	2414	279	5507	422	90	332
	S36	262703	261580	99.6%	1010	196	1937	325	150	175
	S37	262703	260391	99.1%	1529	242	3599	647	156	491
	S38	262703	261341	99.5%	1005	197	2170	583	156	427
	S39	262703	261249	99.4%	1476	199	2731	595	147	448
	S40	262703	262019	99.7%	1225	160	1749	283	124	159
	S41	262703	261492	99.5%	1415	184	2442	279	134	145
<b>Average</b>			<b>260207</b>	<b>99.0%</b>	<b>2051</b>	<b>254</b>	<b>4293</b>	<b>300</b>	<b>126</b>	<b>174</b>
Maximum			262212	99.8%	10573	929	24689	647	167	491
Minimum			247658	94.3%	769	138	1130	155	79	23

Note: Total SNP calls before data filtering were done by GSEQ analysis; all known dbSNPs were mapped by SNP Explorer program.