

Ion AmpliSeq™ Comprehensive Cancer Panel target gene list

The Ion AmpliSeq™ Comprehensive Cancer Panel targets the exons of 409 tumor suppressor genes and oncogenes frequently cited and frequently mutated. Strategically designed to interrogate coding DNA sequences and splice variants across multiple gene families simultaneously, our pathway-based gene selection profiles the mutational spectrum in cancer

driver genes and drug targets along with signaling cascades, apoptosis genes, DNA repair genes, transcription regulators, inflammatory response genes, and growth factor genes in a single assay. Additionally, this panel targets all 50 genes targeted in the focused Ion AmpliSeq™ Cancer Panel v2; these genes are indicated in dark grey cells.

<i>ABL1</i>	<i>AURKA</i>	<i>BMPR1A</i>	<i>CDK4</i>	<i>CTNNB1</i>	<i>EPHB4</i>	<i>FANCD2</i>	<i>FZR1</i>
<i>ABL2</i>	<i>AURKB</i>	<i>BRAF</i>	<i>CDK6</i>	<i>CYLD</i>	<i>EPHB6</i>	<i>FANCF</i>	<i>G6PD</i>
<i>ACVR2A</i>	<i>AURKC</i>	<i>BRD3</i>	<i>CDK8</i>	<i>CYP2C19</i>	<i>ERBB2</i>	<i>FANCG</i>	<i>GATA1</i>
<i>ADAMTS20</i>	<i>AXL</i>	<i>BRIP1</i>	<i>CDKN2A</i>	<i>CYP2D6</i>	<i>ERBB3</i>	<i>FAS</i>	<i>GATA2</i>
<i>AFF1</i>	<i>BAI3</i>	<i>BTB</i>	<i>CDKN2B</i>	<i>DAXX</i>	<i>ERBB4</i>	<i>FBXW7</i>	<i>GATA3</i>
<i>AFF3</i>	<i>BAP1</i>	<i>BUB1B</i>	<i>CDKN2C</i>	<i>DCC</i>	<i>ERCC1</i>	<i>FGFR1</i>	<i>GDNF</i>
<i>AKAP9</i>	<i>BCL10</i>	<i>CARD11</i>	<i>CEBPA</i>	<i>DDB2</i>	<i>ERCC2</i>	<i>FGFR2</i>	<i>GNA11</i>
<i>AKT1</i>	<i>BCL11A</i>	<i>CASC5</i>	<i>CHEK1</i>	<i>DDIT3</i>	<i>ERCC3</i>	<i>FGFR3</i>	<i>GNAQ</i>
<i>AKT2</i>	<i>BCL11B</i>	<i>CBL</i>	<i>CHEK2</i>	<i>DDR2</i>	<i>ERCC4</i>	<i>FGFR4</i>	<i>GNAS</i>
<i>AKT3</i>	<i>BCL2</i>	<i>CCND1</i>	<i>CIC</i>	<i>DEK</i>	<i>ERCC5</i>	<i>FH</i>	<i>GPR124</i>
<i>ALK</i>	<i>BCL2L1</i>	<i>CCND2</i>	<i>CKS1B</i>	<i>DICER1</i>	<i>ERG</i>	<i>FLCN</i>	<i>GRM8</i>
<i>APC</i>	<i>BCL2L2</i>	<i>CCNE1</i>	<i>CMPK1</i>	<i>DNMT3A</i>	<i>ESR1</i>	<i>FLI1</i>	<i>GUCY1A2</i>
<i>AR</i>	<i>BCL3</i>	<i>CD79A</i>	<i>COL1A1</i>	<i>DPYD</i>	<i>ETS1</i>	<i>FLT1</i>	<i>HCAR1</i>
<i>ARID1A</i>	<i>BCL6</i>	<i>CD79B</i>	<i>CRBN</i>	<i>DST</i>	<i>ETV1</i>	<i>FLT3</i>	<i>HIF1A</i>
<i>ARID2</i>	<i>BCL9</i>	<i>CDC73</i>	<i>CREB1</i>	<i>EGFR</i>	<i>ETV4</i>	<i>FLT4</i>	<i>HLF</i>
<i>ARNT</i>	<i>BCR</i>	<i>CDH1</i>	<i>CREBBP</i>	<i>EML4</i>	<i>EXT1</i>	<i>FN1</i>	<i>HNF1A</i>
<i>ASXL1</i>	<i>BIRC2</i>	<i>CDH11</i>	<i>CRKL</i>	<i>EP300</i>	<i>EXT2</i>	<i>FOXL2</i>	<i>HOOK3</i>
<i>ATF1</i>	<i>BIRC3</i>	<i>CDH2</i>	<i>CRTC1</i>	<i>EP400</i>	<i>EZH2</i>	<i>FOXO1</i>	<i>HRAS</i>
<i>ATM</i>	<i>BIRC5</i>	<i>CDH20</i>	<i>CSF1R</i>	<i>EPHA3</i>	<i>FAM123B</i>	<i>FOXO3</i>	<i>HSP90AA1</i>
<i>ATR</i>	<i>BLM</i>	<i>CDH5</i>	<i>CSMD3</i>	<i>EPHA7</i>	<i>FANCA</i>	<i>FOXP1</i>	<i>HSP90AB1</i>
<i>ATRX</i>	<i>BLNK</i>	<i>CDK12</i>	<i>CTNNA1</i>	<i>EPHB1</i>	<i>FANCC</i>	<i>FOXP4</i>	<i>ICK</i>

Learn more about the Ion AmpliSeq™ Comprehensive Cancer Panel at
lifetechnologies.com/ampliseq

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IDH1	KRAS	MLH1	NFKB2	PIK3C2B	RARA	SOCS1	TOP1
IDH2	LAMP1	MLL	NIN	PIK3CA	RB1	SOX11	TP53
IGF1R	LCK	MLL2	NKX2-1	PIK3CB	RECQL4	SOX2	TPR
IGF2	LIFR	MLL3	NLRP1	PIK3CD	REL	SRC	TRIM24
IGF2R	LPHN3	MLLT10	NOTCH1	PIK3CG	RET	SSX1	TRIM33
IKBKB	POT1	MMP2	NOTCH2	PIK3R1	RHOH	STK11	TRIP11
IKBKE	LPP	MN1	NOTCH4	PIK3R2	RNASEL	STK36	TRRAP
IKZF1	LRP1B	MPL	NPM1	PIM1	RNF2	SUFU	TSC1
IL2	LTF	MRE11A	NRAS	PKHD1	RNF213	SYK	TSC2
IL21R	LTK	MSH2	NSD1	PLAG1	ROS1	SYNE1	TSHR
IL6ST	MAF	MSH6	NTRK1	PLCG1	RPS6KA2	TAF1	UBR5
IL7R	MAFB	MTOR	NTRK3	PLEKHG5	RRM1	TAF1L	UGT1A1
ING4	MAGEA1	MTR	NUMA1	PML	RUNX1	TAL1	USP9X
IRF4	MAGI1	MTRR	NUP214	PMS1	RUNX1T1	TBX22	VHL
IRS2	MALT1	MUC1	NUP98	PMS2	SAMD9	TCF12	WAS
ITGA10	MAML2	MUTYH	PAK3	POU5F1	SBDS	TCF3	WHSC1
ITGA9	MAP2K1	MYB	PALB2	PPARG	SDHA	TCF7L1	WRN
ITGB2	MAP2K2	MYC	PARP1	PPP2R1A	SDHB	TCF7L2	WT1
ITGB3	MAP2K4	MYCL1	PAX3	PRDM1	SDHC	TCL1A	XPA
JAK1	MAP3K7	MYCN	PAX5	PRKAR1A	SDHD	TET1	XPC
JAK2	MAPK1	MYD88	PAX7	PRKDC	SEPT9	TET2	XP01
JAK3	MAPK8	MYH11	PAX8	PSIP1	SETD2	TFE3	XRCC2
JUN	MARK1	MYH9	PBRM1	PTCH1	SF3B1	TGFBR2	ZNF384
KAT6A	MARK4	NBN	PBX1	PTEN	SGK1	TGM7	ZNF521
KAT6B	MBD1	NCOA1	PDE4DIP	PTGS2	SH2D1A	THBS1	
KDM5C	MCL1	NCOA2	PDGFB	PTPN11	SMAD2	TIMP3	
KDM6A	MDM2	NCOA4	PDGFRA	PTPRD	SMAD4	TLR4	
KDR	MDM4	NF1	PDGFRB	PTPRT	SMARCA4	TLX1	
KEAP1	MEN1	NF2	PER1	RAD50	SMARCB1	TNFAIP3	
KIT	MET	NFE2L2	PGAP3	RAF1	SMO	TNFRSF14	
KLF6	MITF	NFKB1	PHOX2B	RALGDS	SMUG1	TNK2	

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