

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.

ABL1	AURKC	BTK	CEBPA	DDR2	ERG	FLT1	HLF
ABL2	AXL	BUB1B	CHEK1	DEK	ESR1	FLT3	HNF1A
ACVR2A	BAI3	CARD11	CHEK2	DICER1	ETS1	FLT4	HOOK3
ADAMTS20	BAP1	CASC5	CIC	DNMT3A	ETV1	FN1	HRAS
AFF1	BCL10	CBL	CKS1B	DPYD	ETV4	FOXL2	HSP90AA1
AFF3	BCL11A	CCND1	CMPK1	DST	EXT1	FOXO1	HSP90AB1
AKAP9	BCL11B	CCND2	COL1A1	EGFR	EXT2	FOXO3	ICK
AKT1	BCL2	CCNE1	CRBN	EML4	EZH2	FOXP1	IDH1
AKT2	BCL2L1	CD79A	CREB1	EP300	FAM123B	FOXP4	IDH2
AKT3	BCL2L2	CD79B	CREBBP	EP400	FANCA	FZR1	IGF1R
ALK	BCL3	CDC73	CRKL	EPHA3	FANCC	G6PD	IGF2
APC	BCL6	CDH1	CRTC1	EPHA7	FANCD2	GATA1	IGF2R
AR	BCL9	CDH11	CSF1R	EPHB1	FANCF	GATA2	IKBKB
ARID1A	BCR	CDH2	CSMD3	EPHB4	FANCG	GATA3	IKBKE
ARID2	BIRC2	CDH20	CTNNA1	EPHB6	FAS	GDNF	IKZF1
ARNT	BIRC3	CDH5	CTNNB1	ERBB2	FBXW7	GNA11	IL2
ASXL1	BIRC5	CDK12	CYLD	ERBB3	FGFR1	GNAQ	IL21R
ATF1	BLM	CDK4	CYP2C19	ERBB4	FGFR2	GNAS	IL6ST
ATM	BLNK	CDK6	CYP2D6	ERCC1	FGFR3	GPR124	IL7R
ATR	BMPR1A	CDK8	DAXX	ERCC2	FGFR4	GRM8	ING4
ATRX	BRAF	CDKN2A	DCC	ERCC3	FH	GUCY1A2	IRF4
AURKA	BRD3	CDKN2B	DDB2	ERCC4	FLCN	HCAR1	IRS2
AURKB	BRIP1	CDKN2C	DDIT3	ERCC5	FLI1	HIF1A	ITGA10

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ITGA9	MALT1	MTR	NTRK1	PKHD1	RNASEL	SSX1	TPR
ITGB2	MAML2	MTRR	NTRK3	PLAG1	RNF2	STK11	TRIM24
ITGB3	MAP2K1	MUC1	NUMA1	PLCG1	RNF213	STK36	TRIM33
JAK1	MAP2K2	MUTYH	NUP214	PLEKHG5	ROS1	SUFU	TRIP11
JAK2	MAP2K4	MYB	NUP98	PML	RPS6KA2	SYK	TRRAP
JAK3	MAP3K7	MYC	PAK3	PMS1	RRM1	SYNE1	TSC1
JUN	MAPK1	MYCL1	PALB2	PMS2	RUNX1	TAF1	TSC2
KAT6A	MAPK8	MYCN	PARP1	POU5F1	RUNX1T1	TAF1L	TSHR
KAT6B	MARK1	MYD88	PAX3	PPARG	SAMD9	TAL1	UBR5
KDM5C	MARK4	MYH11	PAX5	PPP2R1A	SBDS	TBX22	UGT1A1
KDM6A	MBD1	MYH9	PAX7	PRDM1	SDHA	TCF12	USP9X
KDR	MCL1	NBN	PAX8	PRKAR1A	SDHB	TCF3	VHL
KEAP1	MDM2	NCOA1	PBRM1	PRKDC	SDHC	TCF7L1	WAS
KIT	MDM4	NCOA2	PBX1	PSIP1	SDHD	TCF7L2	WHSC1
KLF6	MEN1	NCOA4	PDE4DIP	PTCH1	SEPT9	TCL1A	WRN
KRAS	MET	NF1	PDGFB	PTEN	SETD2	TET1	WT1
LAMP1	MITF	NF2	PDGFRA	PTGS2	SF3B1	TET2	XPA
LCK	MLH1	NFE2L2	PDGFRB	PTPN11	SGK1	TFE3	XPC
LIFR	MLL	NFKB1	PER1	PTPRD	SH2D1A	TGFBR2	XPO1
LPHN3	MLL2	NFKB2	PGAP3	PTPRT	SMAD2	TGM7	XRCC2
POT1	MLL3	NIN	PHOX2B	RAD50	SMAD4	THBS1	ZNF384
LPP	MLLT10	NKX2-1	PIK3C2B	RAF1	SMARCA4	TIMP3	ZNF521
LRP1B	MMP2	NLRP1	PIK3CA	RALGDS	SMARCB1	TLR4	
LTF	MN1	NOTCH1	PIK3CB	RARA	SMO	TLX1	
LTK	MPL	NOTCH2	PIK3CD	RB1	SMUG1	TNFAIP3	
MAF	MRE11A	NOTCH4	PIK3CG	RECQL4	SOCS1	TNFRSF14	
MAFB	MSH2	NPM1	PIK3R1	REL	SOX11	TNK2	
MAGEA1	MSH6	NRAS	PIK3R2	RET	SOX2	TOP1	
MAGI1	MTOR	NSD1	PIM1	RHOH	SRC	TP53	

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