OmniSeq® INSIGHT Gene List

OmniSeq® INSIGHT is a comprehensive genomic profiling test that uses next generation DNA sequencing of the full exonic coding region of 523 genes to detect small variants (single and multinucleotide substitutions, insertions, deletions and indels), and copy number alterations (gains and losses) and includes calculation of microsatellite instability (MSI), homologous recombination deficiency (HRD) for clinically relevant indications and tumor mutational burden (TMB) genomic signatures. RNA is also sequenced to detect fusions (rearrangements) and splice variants. In addition to PD-L1 protein expression by immunohistochemistry (IHC).

Genomic & Immune Profiling

DNA-Sequencing of 523 genes (full coding exonic regions) for the detection of substitutions, indels, MSI, HRD and TMB

ABL1	BCR	COP1	ERBB3	FGFR4	H3C15	KDM5C	MLLT3	PARP1	PRKN	SDHC	TCF7L2
ABL2	BIRC3	CREBBP	ERBB4	FH	H3C2	KDM6A	MPL	PAX3	PRSS8	SDHD	TENT5C
ABRAXAS1	BLM	CRKL	ERCC1	FLCN	H3C3	KDR	MRE11	PAX5	PTCH1	SETBP1	TERC
ACVR1	BMPR1A	CRLF2	ERCC2	FLI1	H3C4	KEAP1	MSH2	PAX7	PTEN	SETD2	TERT
ACVR1B	BRAF	CSF1R	ERCC3	FLT1	H3C6	KEL	MSH3	PAX8	PTPN11	SF3B1	TET1
ADGRA2	BRCA1	CSF3R	ERCC4	FLT3	H3C7	KIF5B	MSH6	PBRM1	PTPRD	SH2B3	TET2
AKT1	BRCA2	CSNK1A1	ERCC5	FLT4	H3C8	KIT	MST1	PDCD1	PTPRS	SH2D1A	TFE3
AKT2	BRD4	CTCF	ERG	FOXA1	HGF	KLF4	MST1R	PDCD1LG2	PTPRT	SHQ1	TFRC
AKT3	BRIP1	CTLA4	ERRFI1	FOXL2	HLA-A	KLHL6	MTOR	PDGFRA	QKI	SLIT2	TGFBR1
ALK	BTG1	CTNNA1	ESR1	FOXO1	HLA-B	KMT2A	MUTYH	PDGFRB	RAB35	SLX4	TGFBR2
ALOX12B	BTK	CTNNB1	ETS1	FOXP1	HLA-C	KMT2B	MYB	PDK1	RAC1	SMAD2	TMEM127
AMER1	CALR	CUL3	ETV1	FRS2	HNF1A	KMT2C	MYC	PDPK1	RAD21	SMAD3	TMPRSS2
ANKRD11	CARD11	CUX1	ETV4	FUBP1	HNRNPK	KMT2D	MYCL	PGR	RAD50	SMAD4	TNFAIP3
ANKRD26	CASP8	CXCR4	ETV5	FYN	HOXB13	KRAS	MYCN	PHF6	RAD51	SMARCA4	TNFRSF14
APC	CBFB	CYLD	ETV6	GABRA6	HRAS	LAMP1	MYD88	PHOX2B	RAD51B	SMARCB1	TOP1
AR	CBL	DAXX	EWSR1	GATA1	HSD3B1	LATS1	MYOD1	PIK3C2B	RAD51C	SMARCD1	TOP2A
ARAF	CCN6	DCUN1D1	EZH2	GATA2	HSP90AA1	LATS2	NAB2	PIK3C2G	RAD51D	SMC1A	TP53
ARFRP1	CCND1	DDR2	FANCA	GATA3	ICOSLG	LMO1	NBN	PIK3C3	RAD52	SMC3	TP63
ARID1A	CCND2	DDX41	FANCC	GATA4	ID3	LRP1B	NCOA3	PIK3CA	RAD54L	SMO	TRAF2
ARID1B	CCND3	DHX15	FANCD2	GATA6	IDH1	LYN	NCOR1	PIK3CB	RAF1	SNCAIP	TRAF7
ARID2	CCNE1	DICER1	FANCE	GEN1	IDH2	LZTR1	NEGR1	PIK3CD	RANBP2	SOCS1	TSC1
ARID5B	CD274	DIS3	FANCF	GID4	IFNGR1	MAGI2	NF1	PIK3CG	RARA	SOX10	TSC2
ASXL1	CD276	DNAJB1	FANCG	GLI1	IGF1	MALT1	NF2	PIK3R1	RASA1	SOX17	TSHR
ASXL2	CD74	DNMT1	FANCI	GNA11	IGF1R	MAP2K1	NFE2L2	PIK3R2	RB1	SOX2	U2AF1
ATM	CD79A	DNMT3A	FANCL	GNA13	IGF2	MAP2K2	NFKBIA	PIK3R3	RBM10	SOX9	VEGFA
ATR	CD79B	DNMT3B	FAS	GNAQ	IKBKE	MAP2K4	NKX2-1	PIM1	RECQL4	SPEN	VHL
ATRX	CDC73	DOT1L	FAT1	GNAS	IKZF1	MAP3K1	NKX3-1	PLCG2	REL	SPOP	VTCN1
AURKA	CDH1	E2F3	FBXW7	GPS2	IL10	MAP3K13	NOTCH1	PLK2	RET	SPTA1	WT1
AURKB	CDK12	EED	FGF1	GREM1	IL7R	MAP3K14	NOTCH2	PMAIP1	RHEB	SRC	XIAP
AXIN1	CDK4	EGFL7	FGF10	GRIN2A	INHA	MAP3K4	NOTCH3	PMS1	RHOA	SRSF2	XPO1
AXIN2	CDK6	EGFR	FGF14	GRM3	INHBA	MAPK1	NOTCH4	PMS2	RICTOR	STAG1	XRCC2
AXL	CDK8	EIF1AX	FGF19	GSK3B	INPP4A	MAPK3	NPM1	PNRC1	RIT1	STAG2	YAP1
B2M	CDKN1A	EIF4A2	FGF2	H1-2	INPP4B	MAX	NRAS	POLD1	RNF43	STAT3	YES1
BAP1	CDKN1B	EIF4E	FGF23	H2BC5	INSR	MCL1	NRG1	POLE	ROS1	STAT4	ZBTB2
BARD1	CDKN2A	ELOC	FGF3	H3-3A	IRF2	MDC1	NSD1	PPARG	RPS6KA4	STAT5A	ZBTB7A
BBC3	CDKN2B	EML4	FGF4	H3-3B	IRF4	MDM2	NTRK1	PPM1D	RPS6KB1	STAT5B	ZFHX3
BCL10	CDKN2C	EMSY	FGF5	H3-4	IRS1	MDM4	NTRK2	PPP2R1A	RPS6KB2	STK11	ZNF217
BCL2	CEBPA	EP300	FGF6	H3-5	IRS2	MED12	NTRK3	PPP2R2A	RPTOR	STK40	ZNF703
BCL2L1	CENPA	EPCAM	FGF7	H3C1	JAK1	MEF2B	NUP93	PPP6C	RUNX1	SUFU	ZRSR2
BCL2L11	CHD2	EPHA3	FGF8	H3C10	JAK2	MEN1	NUTM1	PRDM1	RUNX1T1	SUZ12	
BCL2L2	CHD4	EPHA5	FGF9	H3C11	JAK3	MET	PAK1	PREX2	RYBP	SYK	
BCL6	CHEK1	EPHA7	FGFR1	H3C12	JUN	MGA	PAK3	PRKAR1A	SDHA	TAF1	
BCOR	CHEK2	EPHB1	FGFR2	H3C13	KAT6A	MITF	PAK5	PRKCI	SDHAF2	TBX3	
BCORL1	CIC	ERBB2	FGFR3	H3C14	KDM5A	MLH1	PALB2	PRKDC	SDHB	TCF3	

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OmniSeq® INSIGHT Gene List

Genomic & Immune Profiling											
DNA-sequencing of 59 genes for the detection of copy gain and 4 genes for copy loss (ATM, BRCA1, BRCA2, PTEN)											
AKT2	BRCA1	CDK4	ERBB2	FGF1	FGF23	FGF7	FGFR3	LAMP1	MYCL	PDGFRB	RET
ALK	BRCA2	CDK6	ERBB3	FGF10	FGF3	FGF8	FGFR4	MDM2	MYCN	PIK3CA	RICTOR
AR	CCND1	CHEK1	ERCC1	FGF14	FGF4	FGF9	JAK2	MDM4	NRAS	PIK3CB	RPS6KB1
ATM	CCND3	CHEK2	ERCC2	FGF19	FGF5	FGFR1	KIT	MET	NRG1	PTEN	TFRC
BRAF	CCNE1	EGFR	ESR1	FGF2	FGF6	FGFR2	KRAS	MYC	PDGFRA	RAF1	
RNA-sequencing of 55 genes for the detection of fusions and 2 genes for splice variants (EGFR, MET)											
ABL1	BCL2	CSF1R	ESR1	EWSR1	FLI1	KIF5B	MSH2	NRG1	PAX7	RAF1	
AKT3	BRAF	EGFR	ETS1	FGFR1	FLT1	KIT	MYC	NTRK1	PDGFRA	RET	
ALK	BRCA1	EML4	ETV1	FGFR2	FLT3	KMT2A	NOTCH1	NTRK2	PDGFRB	ROS1	
AR	BRCA2	ERBB2	ETV4	FGFR3	JAK2	MET	NOTCH2	NTRK3	PIK3CA	RPS6KB1	
AXL	CDK4	ERG	ETV5	FGFR4	KDR	MLLT3	NOTCH3	PAX3	PPARG	TMPRSS2	
Immunohistochemistry for expression of PD-L1											
PD-L1 IHC (22C3)											

For more information about OmniSeq INSIGHT visit **oncology.labcorp.com/omniseq**, or contact your Labcorp Oncology sales representative.

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