

Comprehensive Genomic Profile includes: Tumor Mutational Burden (TMB) and Microsatellite Instability (MSI) and analysis of 523 genes assayed for small substitutions, insertions and deletions, copy number amplification, fusions and translocations as listed below.

Table 1. 523 Genes assayed for full-exon coverage for substitutions and small insertions & deletions

ABL1	BCR	CRKL	ERCC1	FH	HIST1H3H	KDM6A	MPL	PAX3	PRSS8	SDHC	TCF7L2
ABL2	BIRC3	CRLF2	ERCC2	FLCN	HIST1H3I	KDR	MRE11	PAX5	PTCH1	SDHD	TERC
ABRAXAS1	BLM	CSF1R	ERCC3	FLI1	HIST1H3J	KEAP1	MSH2	PAX7	PTEN	SETBP1	TERT*
ACVR1	BMPR1A	CSF3R	ERCC4	FLT1	HIST2H3A	KEL	MSH3	PAX8	PTPN11	SETD2	TET1
ACVR1B	BRAF	CSNK1A1	ERCC5	FLT3	HIST2H3C	KIF5B	MSH6	PBRM1	PTPRD	SF3B1	TET2
ADGRA2	BRCA1	CTCF	ERG	FLT4	HIST2H3D	KIT	MST1	PDCD1	PTPRS	SH2B3	TFE3
AKT1	BRCA2	CTLA4	ERRF1	FOXA1	HIST3H3	KLF4	MST1R	PDCD1LG2	PTPRT	SH2D1A	TFRC
AKT2	BRD4	CTNNA1	ESR1	FOXL2	HLA-A	KLHL6	MTOR	PDGFRA	QKI	SHQ1	TGFBR1
AKT3	BRIP1	CTNNB1	ETS1	FOXO1	HLA-B	KMT2A	MUTYH	PDGFRB	RAB35	SLIT2	TGFBR2
ALK	BTG1	CUL3	ETV1	FOXP1	HLA-C	KMT2B	MYB	PDK1	RAC1	SLX4	TMEM127
ALOX12B	BTK	CUX1	ETV4	FRS2	HNF1A	KMT2C	MYC	PDPK1	RAD21	SMAD2	TMPRSS2
AMER1	CALR	CXCR4	ETV5	FUBP1	HNRNPK	KMT2D	MYCL	PGR	RAD50	SMAD3	TNFAIP3
ANKRD11	CARD11	CYLD	ETV6	FYN	HOXB13	KRAS	MYCN	PHF6	RAD51	SMAD4	TNFRSF14
ANKRD26	CASP8	DAXX	EWSR1	GABRA6	HRAS	LAMP1	MYD88	PHOX2B	RAD51B	SMARCA4	TOP1
APC	CBFB	DCUN1D1	EZH2	GATA1	HSD3B1	LATS1	MYOD1	PIK3C2B	RAD51C	SMARCB1	TOP2A
AR	CBL	DDR2	FAM46C	GATA2	HSP90AA1	LATS2	NAB2	PIK3C2G	RAD51D	SMARCD1	TP53
ARAF	CCND1	DDX41	FANCA	GATA3	ICOSLG	LMO1	NBN	PIK3C3	RAD52	SMC1A	TP63
ARFRP1	CCND2	DHX15	FANCC	GATA4	ID3	LRP1B	NCOA3	PIK3CA	RAD54L	SMC3	TRAF2
ARID1A	CCND3	DICER1	FANCD2	GATA6	IDH1	LYN	NCOR1	PIK3CB	RAF1	SMO	TRAF7
ARID1B	CCNE1	DIS3	FANCE	GEN1	IDH2	LZTR1	NEGR1	PIK3CD	RANBP2	SNCAIP	TSC1
ARID2	CD274	DNAJB1	FANCF	GID4	IFNGR1	MAGI2	NF1	PIK3CG	RARA	SOC3	TSC2
ARID5B	CD276	DNMT1	FANCG	GLI1	IGF1	MALT1	NF2	PIK3R1	RASA1	SOX10	TSHR
ASXL1	CD74	DNMT3A	FANCI	GNA11	IGF1R	MAP2K1	NFE2L2	PIK3R2	RB1	SOX17	U2AF1
ASXL2	CD79A	DNMT3B	FANCL	GNA13	IGF2	MAP2K2	NFKBIA	PIK3R3	RBM10	SOX2	VEGFA
ATM	CD79B	DOT1L	FAS	GNAQ	IKBKE	MAP2K4	NKX2-1	PIM1	RECQL4	SOX9	VHL
ATR	CDC73	E2F3	FAT1	GNAS	IKZF1	MAP3K1	NKX3-1	PLCG2	REL	SPEN	VTCN1
ATRX	CDH1	EED	FBXW7	GPS2	IL10	MAP3K13	NOTCH1	PLK2	RET	SPOP	WISP3
AURKA	CDK12	EGFL7	FGF1	GREM1	IL7R	MAP3K14	NOTCH2	PMAIP1	RFWD2	SPTA1	WT1
AURKB	CDK4	EGFR	FGF10	GRIN2A	INHBA	MAP3K4	NOTCH3	PMS1	RHEB	SRC	XIAP
AXIN1	CDK6	EIF1AX	FGF14	GRM3	INHBA	MAPK1	NOTCH4	PMS2	RHOA	SRSF2	XPO1
AXIN2	CDK8	EIF4A2	FGF19	GSK3B	INPP4A	MAPK3	NPM1	PNRC1	RICTOR	STAG1	XRCC2
AXL	CDKN1A	EIF4E	FGF2	H3F3A	INPP4B	MAPK3	NPM1	PNRC1	RICTOR	STAG1	XRCC2
B2M	CDKN1B	ELOC	FGF23	H3F3B	INSR	MCL1	NRG1	POLE	RNF43	STAT3	YES1
BAP1	CDKN2A	EML4	FGF3	H3F3C	IRF2	MDC1	NSD1	PPARG	ROS1	STAT4	ZBTB2
BARD1	CDKN2B	EMSY	FGF4	HGF	IRF4	MDM2	NTRK1	PPM1D	RPS6KA4	STAT5A	ZBTB7A
BBC3	CDKN2C	EP300	FGF5	HIST1H1C	IRS1	MDM4	NTRK2	PPP2R1A	RPS6KB1	STAT5B	ZFHX3
BCL10	CEBPA	EPCAM	FGF6	HIST1H2BD	IRS2	MED12	NTRK3	PPP2R2A	RPS6KB2	STK11	ZNF217
BCL2	CENPA	EPHA3	FGF7	HIST1H3A	JAK1	MEF2B	NUP93	PPP6C	RPTOR	STK40	ZNF703
BCL2L1	CHD2	EPHA5	FGF8	HIST1H3B	JAK2	MEN1	NUTM1	PRDM1	RUNX1	SUFU	ZRSR2
BCL2L11	CHD4	EPHA7	FGF9	HIST1H3C	JAK3	MET	PAK1	PREX2	RUNX1T1	SUZ12	
BCL2L2	CHEK1	EPHB1	FGFR1	HIST1H3D	JUN	MGA	PAK3	PRKAR1A	RYBP	SYK	
BCL6	CHEK2	ERBB2	FGFR2	HIST1H3E	KAT6A	MITF	PAK5	PRKCI	SDHA	TAF1	
BCOR	CIC	ERBB3	FGFR3	HIST1H3F	KDM5A	MLH1	PALB2	PRKDC	SDHAF2	TBX3	
BCORL1	CREBBP	ERBB4	FGFR4	HIST1H3G	KDM5C	MLLT3	PARP1	PRKN	SDHB	TCF3	

*TERT gene coverage includes promoter region

Table 2. 55 Genes Analyzed for fusions/translocations

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

Table 3. 62 Genes Assayed for Copy Number Amplification

AKT2	BRCA1	CDK4	ERBB3	FGF3	FGF9	FGFR2	LAMP1	MYCN	PIK3CA	RPS6KB1
AKT3	BRCA2	CDK6	ERCC1	FGF4	FGF10	FGFR3	MDM2	NRAS	PIK3CB	TFRC
ALK	CCND1	CHEK1	ERCC2	FGF5	FGF14	FGFR4	MDM4	NRG1	PTEN	
AR	CCND3	CHEK2	ESR1	FGF6	FGF19	JAK2	MET	PDCD1LG2	RAF1	
ATM	CCNE1	EGFR	FGF1	FGF7	FGF23	KIT	MYC	PDGFRA	RET	
BRAF	CD274	ERBB2	FGF2	FGF8	FGFR1	KRAS	MYCL	PDGFRB	RICTOR	

Table 4. 10 Gene Symbols recently updated to HGNC Approved Gene Symbol

new symbol	previous	new symbol	previous
ABRAXAS1	FAM175A	KMT2A	MLL
ADGRA2	GPR124	MRE11	MRE11A
AMER1	FAM123B	MYCL	MYCL1
ELOC	TCEB1	PAK5	PAK7
EMSY	C11orf30	PRKN	PARK2