
QIAseq[®] Pan-cancer Multimodal Panel Gene Target List

Panel size: 1.44 Mb

Table 1: 523 DNA gene targets

Table 2: 56 RNA fusion targets

Table 3: 26 microsatellite instability (MSI) loci

Table 1. 523 DNA gene targets

Genes targeted for SNP/indel detection by DNA sequencing											
<i>ABL1</i>	<i>ASXL1</i>	<i>BCOR</i>	<i>CCND2</i>	<i>CENPA</i>	<i>DAXX</i>	<i>EP300</i>	<i>ETV5</i>	<i>FGF19</i>	<i>FOXA1</i>	<i>GPR124</i>	<i>HIST1H3I</i>
<i>ABL2</i>	<i>ASXL2</i>	<i>BCORL1</i>	<i>CCND3</i>	<i>CHD2</i>	<i>DCUN1D1</i>	<i>EPCAM</i>	<i>ETV6</i>	<i>FGF2</i>	<i>FOXL2</i>	<i>GPS2</i>	<i>HIST1H3J</i>
<i>ACVR1</i>	<i>ATM</i>	<i>BCR</i>	<i>CCNE1</i>	<i>CHD4</i>	<i>DDR2</i>	<i>EPHA3</i>	<i>EWSR1</i>	<i>FGF23</i>	<i>FOXO1</i>	<i>GREM1</i>	<i>HIST2H3A</i>
<i>ACVR1B</i>	<i>ATR</i>	<i>BIRC3</i>	<i>CD274</i>	<i>CHEK1</i>	<i>DDX41</i>	<i>EPHA5</i>	<i>EZH2</i>	<i>FGF3</i>	<i>FOXP1</i>	<i>GRIN2A</i>	<i>HIST2H3C</i>
<i>AKT1</i>	<i>ATRX</i>	<i>BLM</i>	<i>CD276</i>	<i>CHEK2</i>	<i>DHX15</i>	<i>EPHA7</i>	<i>FAM175A</i>	<i>FGF4</i>	<i>FRS2</i>	<i>GRM3</i>	<i>HIST2H3D</i>
<i>AKT2</i>	<i>AURKA</i>	<i>BMP1A</i>	<i>CD74</i>	<i>CIC</i>	<i>DICER1</i>	<i>EPHB1</i>	<i>FAM46C</i>	<i>FGF5</i>	<i>FUBP1</i>	<i>GSK3B</i>	<i>HIST3H3</i>
<i>AKT3</i>	<i>AURKB</i>	<i>BRAF</i>	<i>CD79A</i>	<i>CREBBP</i>	<i>DIS3</i>	<i>ERBB2</i>	<i>FANCA</i>	<i>FGF6</i>	<i>FYN</i>	<i>H3F3A</i>	<i>HLA-A</i>
<i>ALK</i>	<i>AXIN1</i>	<i>BRCA1</i>	<i>CD79B</i>	<i>CRKL</i>	<i>DNAJB1</i>	<i>ERBB3</i>	<i>FANCC</i>	<i>FGF7</i>	<i>GABRA6</i>	<i>H3F3B</i>	<i>HLA-B</i>
<i>ALOX12B</i>	<i>AXIN2</i>	<i>BRCA2</i>	<i>CDC73</i>	<i>CRLF2</i>	<i>DNMT1</i>	<i>ERBB4</i>	<i>FANCD2</i>	<i>FGF8</i>	<i>GATA1</i>	<i>H3F3C</i>	<i>HLA-C</i>
<i>AMER1</i>	<i>AXL</i>	<i>BRD4</i>	<i>CDH1</i>	<i>CSF1R</i>	<i>DNMT3A</i>	<i>ERCC1</i>	<i>FANCE</i>	<i>FGF9</i>	<i>GATA2</i>	<i>HGF</i>	<i>HNF1A</i>
<i>ANKRD11</i>	<i>B2M</i>	<i>BRIP1</i>	<i>CDK12</i>	<i>CSF3R</i>	<i>DNMT3B</i>	<i>ERCC2</i>	<i>FANCF</i>	<i>FGFR1</i>	<i>GATA3</i>	<i>HIST1H1C</i>	<i>HNRNPk</i>
<i>ANKRD26</i>	<i>BAP1</i>	<i>BTG1</i>	<i>CDK4</i>	<i>CSNK1A1</i>	<i>DOT1L</i>	<i>ERCC3</i>	<i>FANCG</i>	<i>FGFR2</i>	<i>GATA4</i>	<i>HIST1H2BD</i>	<i>HOXB13</i>
<i>APC</i>	<i>BARD1</i>	<i>BTK</i>	<i>CDK6</i>	<i>CTCF</i>	<i>E2F3</i>	<i>ERCC4</i>	<i>FANCI</i>	<i>FGFR3</i>	<i>GATA6</i>	<i>HIST1H3A</i>	<i>HRAS</i>
<i>AR</i>	<i>BBC3</i>	<i>C11orf30</i>	<i>CDK8</i>	<i>CTLA4</i>	<i>EED</i>	<i>ERCC5</i>	<i>FANCL</i>	<i>FGFR4</i>	<i>GEN1</i>	<i>HIST1H3B</i>	<i>HSD3B1</i>
<i>ARAF</i>	<i>BCL10</i>	<i>CALR</i>	<i>CDKN1A</i>	<i>CTNNA1</i>	<i>EGFL7</i>	<i>ERG</i>	<i>FAS</i>	<i>FH</i>	<i>GID4</i>	<i>HIST1H3C</i>	<i>HSP90AA1</i>
<i>ARFRP1</i>	<i>BCL2</i>	<i>CARD11</i>	<i>CDKN1B</i>	<i>CTNNB1</i>	<i>EGFR</i>	<i>ERRFI1</i>	<i>FAT1</i>	<i>FLCN</i>	<i>GLI1</i>	<i>HIST1H3D</i>	<i>ICOSLG</i>
<i>ARID1A</i>	<i>BCL2L1</i>	<i>CASP8</i>	<i>CDKN2A</i>	<i>CUL3</i>	<i>EIF1AX</i>	<i>ESR1</i>	<i>FBXW7</i>	<i>FLI1</i>	<i>GNA11</i>	<i>HIST1H3E</i>	<i>ID3</i>
<i>ARID1B</i>	<i>BCL2L11</i>	<i>CBFB</i>	<i>CDKN2B</i>	<i>CUX1</i>	<i>EIF4A2</i>	<i>ETS1</i>	<i>FGF1</i>	<i>FLT1</i>	<i>GNA13</i>	<i>HIST1H3F</i>	<i>IDH1</i>
<i>ARID2</i>	<i>BCL2L2</i>	<i>CBL</i>	<i>CDKN2C</i>	<i>CXCR4</i>	<i>EIF4E</i>	<i>ETV1</i>	<i>FGF10</i>	<i>FLT3</i>	<i>GNAQ</i>	<i>HIST1H3G</i>	<i>IDH2</i>
<i>ARID5B</i>	<i>BCL6</i>	<i>CCND1</i>	<i>CEBPA</i>	<i>CYLD</i>	<i>EML4</i>	<i>ETV4</i>	<i>FGF14</i>	<i>FLT4</i>	<i>GNAS</i>	<i>HIST1H3H</i>	<i>IFNGR1</i>

(table continued, next page)

Table 1. 523 DNA gene targets (continued)

Genes targeted for SNP/indel detection by DNA sequencing											
IGF1	KAT6A	LRP1B	MEF2B	MYD88	NSD1	PDGFRB	PMS1	PTPRS	REL	SDHD	SOX10
IGF1R	KDMSA	LYN	MEN1	MYOD1	NTRK1	PDK1	PMS2	PTPRT	RET	SETBP1	SOX17
IGF2	KDM5C	LZTR1	MET	NAB2	NTRK2	PDPK1	PNRC1	QKI	RFWD2	SETD2	SOX2
IKBKE	KDM6A	MAGI2	MGA	NBN	NTRK3	PGR	POLD1	RAB35	RHEB	SF3B1	SOX9
IKZF1	KDR	MALT1	MITF	NCOA3	NUP93	PHF6	POLE	RAC1	RHOA	SH2B3	SPEN
IL10	KEAP1	MAP2K1	MLH1	NCOR1	NUTM1	PHOX2B	PPARG	RAD21	RICTOR	SH2D1A	SPOP
IL7R	KEL	MAP2K2	MLLT3	NEGR1	PAK1	PIK3C2B	PPM1D	RAD50	RIT1	SHQ1	SPTA1
INHA	KIF5B	MAP2K4	MPL	NF1	PAK3	PIK3C2G	PPP2R1A	RAD51	RNF43	SLIT2	SRC
INHBA	KIT	MAP3K1	MRE11A	NF2	PAK7	PIK3C3	PPP2R2A	RAD51B	ROS1	SLX4	SRSF2
INPP4A	KLF4	MAP3K13	MSH2	NFE2L2	PALB2	PIK3CA	PPP6C	RAD51C	RPS6KA4	SMAD2	STAG1
INPP4B	KLHL6	MAP3K14	MSH3	NFKBIA	PARK2	PIK3CB	PRDM1	RAD51D	RPS6KB1	SMAD3	STAG2
INSR	KMT2A	MAP3K4	MSH6	NKX2-1	PARP1	PIK3CD	PREX2	RAD52	RPS6KB2	SMAD4	STAT3
IRF2	KMT2B	MAPK1	MST1	NKX3-1	PAX3	PIK3CG	PRKAR1A	RAD54L	RPTOR	SMARCA4	STAT4
IRF4	KMT2C	MAPK3	MST1R	NOTCH1	PAX5	PIK3R1	PRKCI	RAF1	RUNX1	SMARCB1	STAT5A
IRS1	KMT2D	MAX	MTOR	NOTCH2	PAX7	PIK3R2	PRKDC	RANBP2	RUNX1T1	SMARCD1	STAT5B
IRS2	KRAS	MCL1	MUTYH	NOTCH3	PAX8	PIK3R3	PRSS8	RARA	RYBP	SMC1A	STK11
JAK1	LAMP1	MDC1	MYB	NOTCH4	PBRM1	PIM1	PTCH1	RASA1	SDHA	SMC3	STK40
JAK2	LATS1	MDM2	MYC	NPM1	PDCD1	PLCG2	PTEN	RB1	SDHAF2	SMO	SUFU
JAK3	LATS2	MDM4	MYCL	NRAS	PDCD1LG2	PLK2	PTPN11	RBM10	SDHB	SNCAIP	SUZ12
JUN	LMO1	MED12	MYCN	NRG1	PDGFRA	PMAIP1	PTPRD	RECQL4	SDHC	SOCS1	SYK

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Table 1. 523 DNA gene targets (continued)

Genes targeted for SNP/indel detection by DNA sequencing											
TAF1	TCF7L2	TET2	TGFBR2	TNFRSF14	TP63	TSC2	VHL	WT1	XRCC2	ZBTB2	ZNF217
TBX3	TERC	TFE3	TMEM127	TOP1	TRAF2	TSHR	VTCN1	XIAP	YAP1	ZBTB7A	ZNF703
TCEB1	TERT	TFRC	TMPRSS2	TOP2A	TRAF7	U2AF1	WISP3	XPO1	YES1	ZFHX3	ZRSR2
TCF3	TET1	TGFBR1	TNFAIP3	TP53	TSC1	VEGFA					

Table 2. 56 RNA fusion gene targets

Genes targeted for fusion gene detection by RNA sequencing											
ABL1	BCL2	CSF1R	ESR1	EWSR1	FLI1	KIF5B	MSH2	NRG1	PAX3	PIK3CA	ROS1
AKT3	BRAF	EGFR	ETS1	FGFR1	FLT1	KIT	MYC	NTRK1	PAX7	PPARG	RPS6KB1
ALK	BRCA1	EML4	ETV1	FGFR2	FLT3	KMT2A	NOTCH1	NTRK2	PDGFRA	RAF1	TMPRSS2
AR	BRCA2	ERBB2	ETV4	FGFR3	JAK2	MET	NOTCH2	NTRK3	PDGFRB	RET	TP53
AXL	CDK4	ERG	ETV5	FGFR4	KDR	MLLT3	NOTCH3				

Table 3. 26 microsatellite instability (MSI) loci

Genes targeted for microsatellite length detection by DNA sequencing											
BAT25	BAT40	D17S250	D17S787	D18S61	D18S69	D2S123	D5S107	D7S519	NR21	NR24	D18S35
BAT26	D10S196	D17S588	D18S55	D18S64	D20S100	D3S1029	D5S346	D8S87	NR22	MONO-27	HSP110-T17
BAT34C4	D13S175										

Ordering Information

Product	Contents	Cat. no.
QIAseq Multimodal HC Panel (12)	Kit containing ALL reagents (except indices) sufficient to process 12 samples for multimodal (DNA and RNA) sequencing; fixed high content (HC) panel for a total of 24 reactions	333942
QIAseq Multimodal HC Panel (96)	Kit containing ALL reagents (except indices) sufficient to process 96 samples for multimodal (DNA and RNA) sequencing; fixed high content (HC) panel for a total of 192 reactions	333945
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QIAseq Multimodal Index I Set A SW (96)	Box containing indices, enough to process a total of 96 samples, for indexing up to a total of 96 samples for QIAseq Multimodal Panel sequencing on Illumina platforms using the optional separate workflows; 1 of 2 sets required for multiplexing 192 samples	333985
QIAseq Multimodal Index I Set B SW (96)	Box containing indices, enough to process a total of 96 samples, for indexing up to a total of 96 samples for QIAseq Multimodal Panel sequencing on Illumina platforms using the optional separate workflows; 2 of 2 sets required for multiplexing 192 samples	333995

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