

QIAseq Targeted RNA Panels

Human Cancer Transcriptome

Cat. no. 333002 RHS-003Z-12

For gene expression profiling by RNA sequencing with laboratory-verified primer sets

The Human Cancer Transcriptome QIAseq targeted RNA panel profiles the expression of 395 genes representative of 9 different biological pathways involved in transformation and tumorigenesis. During oncogenesis, gene mutations and related expression changes accumulate in pathways regulating specific aspects of cell growth. Biological pathways that, when deregulated, allow cells to grow and divide unchecked include apoptosis, cell cycle, DNA damage repair, cellular senescence, and telomere maintenance. Changes in metabolism also occur as tumors grow, due in part to altered gene expression. Angiogenesis, another commonly affected pathway, allows further tumor growth via vascularization and oxygenation when stimulated by tumor cell hypoxia signaling. Epithelial-to-mesenchymal transition (EMT) facilitates tumor cell invasion and metastasis. The combination of differentially expressed genes in any given cancer or tumor can be distinctive. Understanding the molecular mechanisms behind specific cancers and researching diagnostic and prognostic biomarkers requires analyses of not just one of these pathways in isolation, but of all the pathways together, and results from this gene panel can suggest pathways that are potentially activated or inhibited in tumor cell samples for further follow-up studies. Using digital RNA sequencing, the expression of 395 genes with established roles in oncogenesis can be analyzed with this primer pool.

For further details, consult the *QIAseq Targeted RNA Panel Handbook*.

Panel is enough for 12 samples.

Shipping and storage

QIAseq Targeted RNA Panels are shipped in two boxes: box 1 of 2 is shipped on dry ice and box 2 of 2 is shipped on blue ice. For long-term storage, keep the contents of box 1 at -20°C and the contents of box 2 at 4°C . If stored under these conditions, the panels are stable for 8 months after receipt.

Note: Open the package and store the products appropriately immediately upon receipt.



Sample to Insight

Panel Contents

Contents	Volume
RNase-free water	1000 μ l
Control P2	12 μ l
Buffer GE	24 μ l
RE3 Reverse Transcriptase Mix	24 μ l
5x Buffer BC3	48 μ l
QIAseq RNA 5x Buffer	300 μ l
HotStarTaq DNA Polymerase (6U / μ l)	60 μ l
RS2 Primer (10 μ M)	20 μ l
BC Primer Mix	80 μ l
LA Primer Mix	80 μ l
QIAseq Beads	4 ml

Gene table: QIAseq Targeted RNA Panels

Gene symbol	Gene symbol	Gene symbol	Gene symbol
ACD	ACVRL1	ADGRB1	ADM
ADORA2B	AHNAK	AKT1	ALDOA
ALDOB	ALDOC	ANAPC2	ANG
ANGPT1	ANGPT2	ANGPTL4	ANKRD37
ANXA2	APAF1	APEX1	ATM
ATP6V1G2	ATR	AURKA	AURKB
BAX	BBC3	BCCIP	BCL2
BCL2A1	BCL2L1	BCL2L11	BHLHE40
BIRC2	BIRC3	BIRC5	BLM
BMI1	BMP1	BNIP3	BNIP3L
BRCA1	BRCA2	BRIP1	C16orf13
CA9	CALD1	CAMK2N1	CASP1
CASP2	CASP3	CASP6	CASP7
CASP9	CAV2	CCL2	CCNA2
CCNB1	CCNB2	CCNC	CCND1
CCND2	CCND3	CCNE1	CCNF
CCNG1	CCNG2	CCNH	CCNT1
CD40	CD40LG	CDC16	CDC20
CDC25A	CDC25B	CDC25C	CDC34
CDC6	CDH1	CDH2	CDH5
CDK1	CDK2	CDK4	CDK5R1
CDK5RAP1	CDK6	CDK7	CDK8
CDKN1A	CDKN1B	CDKN2A	CDKN2B
CDKN2D	CDKN3	CFLAR	CHEK1
CHEK2	CIB1	CKS1B	CKS2
COL18A1	COL1A2	COL3A1	COL4A3

Gene symbol	Gene symbol	Gene symbol	Gene symbol
COL5A2	CTGF	CTSA	CUL1
CUL2	CUL3	CXCL12	CXCL8
CYLD	DDB1	DDB2	DDIT4
DES11	DFFA	DKC1	DLL4
DNAJC5	DSP	E2F1	E2F3
E2F4	EDN1	EFNA1	EFNB2
EGF	EGR1	EIF4EBP1	ENG
ENO1	ENO2	EPHB4	EPO
ERCC1	ERCC2	ERCC3	ERCC4
ERCC5	ERCC6	ERCC8	ETS1
ETS2	EXO1	F3	FAM162A
FAS	FASLG	FBP1	FBP2
FBRSL1	FEN1	FGF1	FGF2
FGFBP1	FIGF	FLT1	FN1
FOXC2	G6PC	GADD45A	GAR1
GNG11	GPI	GSC	GTSE1
HGF	HIF1A	HK1	HK2
HK3	HMOX1	HSP90AA1	HUS1
ID1	IER3	IFNG	IGF1
IGF1R	IGFBP3	IGFBP4	IL1B
IL1RN	IL6	ITGA5	ITGAV
ITGB3	JAG1	JMJD6	KDR
KIAA0586	KNTC1	KPNA2	KRT19
LDHA	LDHB	LEP	LGALS3
LIG1	LIG3	LIG4	LOX
MAD2L1	MAD2L2	MAP3K1	MAP3K2
MCL1	MCM2	MCM3	MCM4
MCM5	MDM2	MET	MGMT
MIF	MKI67	MLH1	MLH3
MMP14	MMP2	MMP3	MMP9
MMS19	MNAT1	MPG	MRE11A
MSH2	MSH3	MSH6	MSN
MST1R	MTOR	MXI1	NAMPT
NBN	NDRG1	NEIL1	NEIL3
NHP2	NOL3	NOP10	NOS3
NOTCH4	NRP1	NRP2	NTHL1
NUDT13	OBFC1	OCLN	ODC1
OGG1	P4HA1	PARP1	PARP2
PARP3	PC	PCK1	PCK2
PDHA1	PDK1	PDK2	PDK3
PDK4	PF4	PFKFB1	PFKFB2
PFKFB3	PFKFB4	PFKL	PFKM
PGAM2	PGF	PGK1	PGK2
PGM1	PIM1	PINX1	PKLR

Gene symbol	Gene symbol	Gene symbol	Gene symbol
PKM	PLAU	PLG	PLK1
PMS1	PMS2	PNKP	POLB
POLL	POT1	PPIE	PPIL2
PRKAA1	PRKAB1	PRKDC	PTGES3
PTGS2	RAD1	RAD17	RAD18
RAD21	RAD23A	RAD23B	RAD50
RAD51	RAD51B	RAD52	RAD54L
RAD9A	RAP1A	RB1	RBBP8
RBL1	RBL2	REV1	RFX1
RGS2	RIF1	RNF8	RPA1
RPA3	RTEL1	RUNX2	RUVBL2
SERPINE1	SERPINF1	SERTAD1	SIRT6
SKP2	SLC16A3	SLC2A1	SLC2A3
SLC2A4	SMUG1	SNAI1	SNAI2
SNAI3	SOX10	SP1	SPARC
SPATA2	SPP1	STEAP1	STK11
STMN1	SYCP2	TCF4	TDG
TEK	TEP1	TERF1	TERF2
TERF2IP	TERT	TFDP1	TFDP2
TFPI2	TFRC	TGFB1	TGFB1
THAP3	THBS1	THBS2	TIMP1
TIMP2	TINF2	TMEFF1	TMEM132A
TNF	TNFRSF10A	TNFRSF11B	TNFRSF1A
TNKS	TNKS2	TP53	TP53BP1
TP73	TPI1	TRAF2	TSPAN13
TWIST1	TXNIP	UNG	VCAN
VDAC1	VEGFA	VEGFC	VIM
VPS13A	WEE1	WNT5A	WNT5B
XAB2	XIAP	XPA	XPC
XRCC1	XRCC2	XRCC3	XRCC4
XRCC5	XRCC6	ZBTB22	ZNF446
_GDC_CONTROL_06_	_GDC_CONTROL_07_	_GDC_CONTROL_14_	_GDC_CONTROL_21_
_GDC_CONTROL_24_	_GDC_CONTROL_32_		

Ordering Information

Product	Contents	Cat. no.
QIAseq Targeted RNA Panel (12)	Kit containing reagents for first strand synthesis, molecular barcoding, gene-specific amplification and QIAseq Beads for targeted RNA sequencing; fixed panel for 12 samples	333002
QIAseq Targeted RNA Panel (96)	Kit containing reagents for first strand synthesis, molecular barcoding, gene-specific amplification and QIAseq Beads for targeted RNA sequencing; fixed panel for 96 samples	333005
QIAseq Targeted RNA Extended Panel (12)	Kit containing reagents for first strand synthesis, molecular barcoding, gene-specific amplification and QIAseq Beads for targeted RNA sequencing; extended panel for 12 samples	333012
QIAseq Targeted RNA Extended Panel (96)	Kit containing reagents for first strand synthesis, molecular barcoding, gene-specific amplification and QIAseq Beads for targeted RNA sequencing; extended panel for 96 samples	333015
QIAseq Targeted RNA Custom Panel (12)	Kit containing reagents for first strand synthesis, molecular barcoding, gene-specific amplification and QIAseq Beads for targeted RNA sequencing; custom panel for 12 samples	333022
QIAseq Targeted RNA Custom Panel (96)	Kit containing reagents for first strand synthesis, molecular barcoding, gene-specific amplification and QIAseq Beads for targeted RNA sequencing; extended panel for 96 samples	333025
QIAseq Targeted RNA Custom Panel (384)	Kit containing reagents for first strand synthesis, molecular barcoding, gene-specific amplification and QIAseq Beads for targeted RNA sequencing; extended panel for 384 samples	333027
QIAseq Targeted RNA 12-index I (48)	Box containing oligos, enough for a total of 48 samples (for indexing up to 12 samples per run) and Custom Sequencing Primer for targeted RNA sequencing on Illumina platforms	333114
QIAseq Targeted RNA 96-index I (384)	Box containing oligos, enough for a total of 384 samples (for indexing up to 96 samples per run) and Custom Sequencing Primer for targeted RNA sequencing on Illumina platforms	333117
QIAseq Targeted RNA 96-index HT I (384)	Box containing oligos in arrays, enough for a total of 384 samples (for indexing up to 96 samples per	333127

Product	Contents	Cat. no.
	run) and Custom Sequencing Primer for targeted RNA sequencing on Illumina platforms	
QIAseq Targeted RNA 12-index L (48)	Box containing oligos, enough for a total of 48 samples (for indexing up to 12 samples per run) for targeted RNA sequencing on Ion Torrent platforms	333214
QIAseq Targeted RNA 96-index HT L (384)	Box containing oligos, enough for a total of 384 samples (for indexing up to 96 samples per run) for targeted RNA sequencing on Ion Torrent platforms	333217

QIAseq Targeted RNA Panels are intended for molecular biology applications. These products are not intended for the diagnosis, prevention or treatment of a disease.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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Sample to Insight