

QIAseq Targeted RNA Panels

Human Signal Transduction PathwayFinder

Cat. no. 333002 RHS-007Z-12

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

The Human Signal Transduction PathwayFinder QIAseq targeted RNA panel profiles the expression of 405 genes responsive to the activation or inhibition of 20 different signal transduction pathways. Cellular signaling is mediated by a complex network of signal transduction pathways. Each pathway ultimately increases or decreases the expression of its target genes to effect alteration of cellular processes. Changes in expression levels of specific subsets of target genes can be indicative of activation or inhibition of a specific pathway. Even within a single pathway, the expression of individual target genes can vary widely depending on model systems and experimental conditions; therefore, multiple target genes from each pathway should be examined to ensure accurate signaling pathway identification across a variety of model systems. Multiple pathways may be activated or inhibited in a coordinated manner, and examining multiple pathways simultaneously can be advantageous in testing for signaling crosstalk. This panel has been designed using literature-based and bioinformatic approaches to identify target genes activated or repressed by the terminal transcription factors downstream of the indicated pathways. The pathways represented in this panel are important for developmental, immunological, metabolic, and stress-activated processes, and dysregulation of one or more of these pathways is implicated in the etiology of a wide spectrum of diseases. Results obtained with this panel can suggest pathways that are potentially activated or inhibited by an experimental stimulus for further follow-up studies. Using digital RNA sequencing, the expression of 405 target genes downstream of 20 different signaling pathways 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
ABCC4	ABCG2	ACACA	ACSL3
ACSL4	ACSL5	ACTC1	ADA
ADCYAP1	ADIPOQ	ADM	ADM2
ADORA1	AFAP1L2	AKR1C2	ALAS1
ALDOC	ANGPTL4	ANKRD37	APEX1
APOA1	APOA5	APOC3	APOE
AR	ARNT	ASNS	ATF3
ATF4	ATM	AXIN2	BAG2
BAX	BBC3	BCL2	BCL2A1
BCL2L1	BCL2L11	BCL6	BDNF
BEX2	BHLHE40	BIRC3	BIRC5
BMP2	BMP4	BMPR2	BNIP3
BNIP3L	BOD1	BRCA1	BTG2
C16orf13	C3	CA12	CA9
CAD	CALM1	CAMKK2	CCK
CCL11	CCL2	CCL20	CCL5
CCNA2	CCND1	CCND2	CCNG1
CCNG2	CCT5	CD83	CDC25A
CDH1	CDK4	CDKN1A	CDKN1B
CDKN2B	CDX1	CEBPA	CEBPB
CHSY1	CIITA	CKM	CPT2
CRABP1	CRABP2	CSDE1	CSF1
CSN2	CXADR	CXCL2	CXCL3
CXCL8	CXCL9	CYFIP2	CYP19A1
CYP1A1	CYP26A1	CYP26B1	CYP26C1
CYP4V2	CYP7A1	DAB2	DBI

Gene symbol	Gene symbol	Gene symbol	Gene symbol
DDB2	DDIT3	DGAT1	DHCR24
DHRS9	DIO2	DKC1	DNAJB9
DTX1	DUSP1	EDN1	EGFR
EGR1	EGR2	EMP1	ENO1
EPO	ERCC1	ERCC2	ESR1
EXO1	F12	FABP1	FABP3
FABP4	FAM162A	FAS	FASLG
FASN	FBRSL1	FBXO32	FCER2
FEN1	FGF2	FHL2	FKBP5
FOS	FOSL1	FOSL2	FOXO1
FST	FSTL3	FTH1	G6PC
GADD45A	GADD45B	GATA3	GBX2
GCK	GCLC	GCLM	GDF15
GIN52	GK	GLA	GLI1
GLI2	GLI3	GREB1	GSR
GUCY1A3	H19	HERPUD1	HES1
HES4	HES5	HEY1	HEY2
HEYL	HHIP	HIF1A	HK2
HMGCS2	HMOX1	HNF1B	HNRNPA1
HOXA1	HOXB1	HP	HSP90AA1
HSPA12A	HSPA5	HTR1A	ICAM1
ID1	ID3	IFITM5	IFNG
IFRD1	IGF1	IGF1R	IGFBP1
IGFBP3	IGFBP4	IGFBP5	IL10
IL1B	IL21	IL6	ILK
INHBE	INSR	IRF1	IRF8
IRS1	IRS2	ISG15	ITGB1
JAG1	JUN	JUNB	KANK4
KCNMB3	KIAA0586	KLF2	KLF9
KLHL24	KLK2	KLK3	LDHA
LEF1	LEFTY1	LEP	LFNG
LHPP	LIG1	MAP3K2	MCL1
MCM4	MLH1	MME	MMP13
MMP2	MMP7	MMP9	MSH2
MT1A	MT2A	MTFP1	MTSS1
MUC5AC	MYC	MYOCD	NAP1L1
NAV2	NCL	NCOA7	NDRG1
NFKB1	NFKBIA	NFKBIE	NKX3-1
NME1	NOS2	NOS3	NOTCH1
NOV	NPM1	NPY	NQO1
NR1H3	NR4A1	NR4A2	NRARP
OAS1	OGG1	OLR1	P4HA1
PA2G4	PARP1	PCK1	PCK2
PCNA	PDX1	PER1	PER2

Gene symbol	Gene symbol	Gene symbol	Gene symbol
PFKFB4	PGC	PGK1	PGR
PIDD1	PLTP	PMAIP1	PMEPA1
PMS2	PNKP	PPARD	PPARG
PPARGC1A	PPAT	PPIE	PPIL2
PPP2R4	PRDX3	PRKCA	PRKDC
PRL	PRMT6	PSMG1	PTCH1
PTEN	PTGR1	PTGS2	RAD50
RAD51	RAP1GAP	RARA	RARB
RARG	RB1	RBP1	RBP4
REN	RET	RFX1	RHOB
RICTOR	RNF144B	RPA1	RRM2
RRM2B	SCGB1A1	SCNN1A	SERPINA3
SERPINE1	SESN1	SFN	SGK1
SGK3	SKP2	SLC17A2	SLC19A1
SLC19A2	SLC22A5	SLC27A1	SLC27A4
SLC2A1	SLC2A3	SLC2A4	SLC45A3
SLC6A12	SLC7A11	SMAD6	SNAI1
SNAI2	SOCS3	SOD2	SORBS1
SOX2	SOX4	SPINK1	SQSTM1
SREBF1	SRSF1	SST	STAT1
STK38L	STK39	STRA6	STX11
TAP1	TAT	TERT	TFF1
TGFB2	TGM2	THAP3	TIFA
TLR9	TMPRSS2	TNF	TNFAIP2
TNFAIP3	TNFRSF10B	TNFRSF1B	TNFSF10
TP53	TP53I3	TP53INP1	TPD52
TRAPPC6A	TRIB3	TSC22D3	TXN
TXNIP	TXNRD1	TYMS	UBASH3B
UBD	UBE2C	UHRF1	UNG
VEGFA	WISP1	WNT1	WNT2B
WNT3A	WNT5A	WNT6	XPA
XPC	XRCC1	XRCC6	YBX3
ZBTB16	ZBTB22	ZFP36	ZFP36L1
ZNF281	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