

# QIAseq Targeted RNA Panels

## Mouse Signal Transduction PathwayFinder

Cat. no. 333002 RMM-007Z

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

The Mouse 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*.

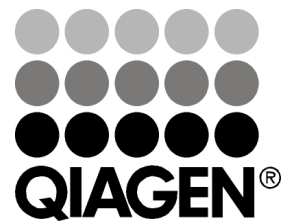
Panel is enough for 12 samples.

### 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  $-20^{\circ}\text{C}$  and the contents of box 2 at  $4^{\circ}\text{C}$ . If stored under these conditions, the panels are stable for 8 months after receipt.

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



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Sample to Insight

## Panel Contents

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

## Gene table: QIAseq Targeted RNA Panels

Gene symbol	Gene symbol	Gene symbol	Gene symbol
A2m	Abcc4	Abcg2	Acaca
Acsl3	Acsl4	Acsl5	Actc1
Ada	Adcyap1	Adipoq	Adm
Adm2	Adora1	Afap1l2	Akr1c21
Alas1	Aldoc	Angptl4	Ankrd37
Apex1	Apoa1	Apoc3	Apoe
Ar	Arnt	Asns	Atf3
Atf4	Atm	Axin2	Bag2
Bax	Bbc3	Bcl2	Bcl2a1a
Bcl2a1b	Bcl2a1c	Bcl2a1d	Bcl2l1
Bcl2l11	Bcl6	Bdnf	Bex2
Bhlhe40	Birc3	Birc5	Bmp2
Bmp4	Bmpr2	Bnip3	Bnip3l
Bod1	Brca1	Btg2	C3
Cad	Calm1	Camkk2	Car12
Car9	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	Cxcl9	Cyfp2	Cyp19a1
Cyp1a1	Cyp26a1	Cyp26b1	Cyp26c1
Cyp4v3	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	Fasl
Fasn	Fbrsl1	Fbxo32	Fcer2a
Fen1	Fgf2	Fhl2	Fkbp5
Fos	Fosl1	Fosl2	Foxo1
Fst	Fstl3	Fth1	G6pc
Gadd45a	Gadd45b	Gata3	Gbx2
Gck	Gclc	Gclm	Gdf15
Gins2	Gk	Gla	Gli1
Gli2	Gli3	Greb1	Gsr
Gucy1a3	H19	Herpud1	Hes1
Hes5	Hey1	Hey2	Heyl
Hhip	Hif1a	Hk2	Hmgcs2
Hnf1b	Hnrnpa1	Hoxa1	Hoxb1
Hp	Hsp90aa1	Hspa12a	Hspa5
Htr1a	Icam1	Id1	Id3
Ifitm5	Ifnf	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	Klf2
Klf9	Klhl24	Ldha	Lef1
Lefty1	Lep	Lfnf	Lhpp
Lig1	Map3k2	Mcl1	Mcm4
Mlh1	Mme	Mmp13	Mmp2
Mmp7	Mmp9	Msh2	Mt1
Mt2	Mtfp1	Mtss1	Muc5ac
Myc	Myocd	Nap111	Nav2
Ncl	Ncoa7	Ndrf1	Nfkb1
Nfkbia	Nfkbie	Nkx3-1	Nme1
Nos2	Nos3	Notch1	Nov
Npm1	Npy	Nqo1	Nr1h3
Nr4a1	Nr4a2	Nrarp	Oas1a
Oas1g	Olr1	P4ha1	Pa2g4
Parp1	Pck1	Pck2	Pcna
Pdx1	Per1	Per2	Pfkfb4
Pgc	Pgk1	Pgr	Pidd1

Gene symbol	Gene symbol	Gene symbol	Gene symbol
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	Ren1
Ret	Rfx1	Rhob	Rictor
Rnf144b	Rpa1	Rrm2	Rrm2b
Scgb1a1	Scnn1a	Serpina3n	Serpine1
Sesn1	Sfn	Sgk1	Sgk3
Skp2	Slc17a2	Slc19a1	Slc19a2
Slc22a5	Slc27a1	Slc27a4	Slc2a1
Slc2a3	Slc2a4	Slc45a3	Slc6a12
Slc7a11	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	Tpd52	Trappc6a
Trib3	Trp53	Trp53inp1	Tsc22d3
Txn1	Txnip	Txnrd1	Tyms
Ubash3b	Ubd	Ube2c	Uhrf1
Ung	Vegfa	Wisp1	Wnt1
Wnt2b	Wnt3a	Wnt5a	Wnt6
Xpa	Xpc	Xrcc1	Xrcc6
Ybx3	Zbtb16	Zbtb22	Zfp281
Zfp36	Zfp361l	Zfp446	_GDC_CONTROL_MUS_01_
_GDC_CONTROL_MUS_02_	_GDC_CONTROL_MUS_03_	_GDC_CONTROL_MUS_08_	_GDC_CONTROL_MUS_09_

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## 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.

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Sample to Insight