

QIAseq Targeted RNA Panels

Human Inflammation & Immunity Transcriptome

Cat. no. 333002 RHS-005Z-12

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

The Human Inflammation & Immunity Transcriptome QIAseq targeted RNA panel profiles the expression of 475 genes involved in regulating immune and inflammatory processes. The panel contains cytokines, chemokines, growth factors and their receptors, downstream signaling pathway genes, and transcription factors involved in coordinating diverse functions of the immune system. Also present are toll-like receptor and associated adapter and downstream signaling genes involved in pathogen sensing. Interferons, interferon receptors and regulatory factors, and a variety of interferon response genes involved in host anti-viral defense are also present. Genes involved in specialized functions of the various immune cell types are also represented, such as antigen uptake and presentation by dendritic cells and antigen presenting cells, differentiation and activation of T and B cells, and responses of cytotoxic and helper (Th1, Th2, Th17) T cells. Genes with pro- or anti-apoptotic effects in immune or targeted host cells are also included. Other genes in this panel regulate functions including innate and adaptive immunity, T cell anergy and immune tolerance, autoimmunity, acute phase response, complement activation, and inflammation. Many of these genes are acutely upregulated due to cell damage, injury, or infection to promote and eventually resolve the inflammatory response. Chronic inflammation, the expression of these cytokines and receptors at low levels over long periods of time, promotes various pathological conditions including allergies and asthma, cardiovascular system disorders such as atherosclerosis, central nervous system disorders such as Alzheimer's disease, fibrosis, and rheumatoid arthritis. Using digital RNA sequencing, the expression of 475 genes with established roles in immune system processes 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
ACKR3	ACKR4	ADA	ADAR
ADIPOQ	AICDA	AIMP1	APCS
BCL2	BCL2L1	BCL6	BLNK
BMP2	BMP4	BMP6	BMP7
BST2	BTK	BTLA	C16orf13
C3	C3AR1	C5	C5AR1
CASP1	CASP8	CAV1	CBLB
CCL1	CCL11	CCL13	CCL14
CCL15	CCL16	CCL17	CCL18
CCL19	CCL2	CCL20	CCL21
CCL22	CCL23	CCL24	CCL25
CCL26	CCL27	CCL28	CCL3
CCL4	CCL5	CCL7	CCL8
CCR1	CCR10	CCR2	CCR3
CCR4	CCR5	CCR6	CCR7
CCR8	CCR9	CCRL2	CD14
CD180	CD1A	CD1B	CD1C
CD1D	CD2	CD209	CD27
CD274	CD276	CD28	CD3D
CD3E	CD3G	CD4	CD40
CD40LG	CD44	CD47	CD5
CD7	CD70	CD74	CD80
CD81	CD86	CD8A	CDC42
CDK2	CDKN1A	CDKN1B	CEBPA
CEBPB	CHUK	CIITA	CKLF
CLEC4C	CLEC4E	CLEC7A	CMKLR1

Gene symbol	Gene symbol	Gene symbol	Gene symbol
CNTF	CRLF2	CRP	CSF1
CSF1R	CSF2	CSF2RA	CSF3
CSF3R	CTLA4	CX3CL1	CX3CR1
CXCL1	CXCL10	CXCL11	CXCL12
CXCL13	CXCL14	CXCL16	CXCL2
CXCL3	CXCL5	CXCL6	CXCL8
CXCL9	CXCR1	CXCR2	CXCR3
CXCR4	CXCR5	CXCR6	DDX58
DGKZ	DPP4	EBI3	EGF
EGFR	EGR1	EGR2	EGR3
EIF2AK2	ELK1	EOMES	ERBB2
F3	FADD	FAS	FASLG
FBRSL1	FCER1A	FCER2	FCGR1A
FIGF	FLT3	FLT3LG	FOS
FOSL1	FOXP1	FOXP3	FPR1
GATA3	GBP1	GFI1	GPI
GZMA	GZMB	HAVCR2	HDAC9
HIF1A	HLA-A	HLA-B	HLA-C
HLA-DMA	HLA-DPA1	HLA-E	HLA-G
HMGB1	HSPD1	ICAM1	ICOS
ID2	IDO1	IFI16	IFI27
IFI30	IFI44	IFI44L	IFI6
IFIH1	IFIT1	IFIT2	IFIT3
IFITM1	IFITM2	IFITM3	IFNA1
IFNA14	IFNA16	IFNA2	IFNA21
IFNA4	IFNA5	IFNA6	IFNA7
IFNA8	IFNAR1	IFNAR2	IFNB1
IFNE	IFNG	IFNGR1	IFNGR2
IFNK	IFNL1	IFNLR1	IFNW1
IGF1	IGSF6	IKBKB	IL10
IL10RA	IL10RB	IL11	IL11RA
IL12A	IL12B	IL12RB1	IL12RB2
IL13	IL13RA1	IL15	IL16
IL17A	IL17B	IL17C	IL17F
IL17RA	IL17RB	IL17RE	IL18
IL18R1	IL18RAP	IL19	IL1A
IL1B	IL1R1	IL1R2	IL1RAP
IL1RL1	IL1RN	IL2	IL20
IL20RB	IL21	IL21R	IL22
IL22RA2	IL23A	IL23R	IL24
IL25	IL27	IL27RA	IL2RA
IL2RB	IL2RG	IL3	IL31
IL31RA	IL33	IL3RA	IL4
IL4R	IL5	IL5RA	IL6

Gene symbol	Gene symbol	Gene symbol	Gene symbol
IL6R	IL7	IL7R	IL9
IL9R	INHBA	INHBA	IRAK1
IRAK2	IRAK4	IRF1	IRF2
IRF2BP1	IRF3	IRF4	IRF5
IRF6	IRF7	IRF8	IRF9
IRGM	ISG15	ISG20	ITCH
ITGA1	ITGAM	ITGB2	JAK1
JAK2	JAK3	JUN	KIAA0586
KITLG	KNG1	LAG3	LAT
LCK	LEP	LEPR	LGALS3
LIF	LRP1	LTA	LTB
LY86	LY96	LYN	LYZ
MAF	MAP2K3	MAP3K1	MAP3K2
MAP3K7	MAPK1	MAPK8	MBL2
MET	MICA	MICB	MIF
MMP3	MMP9	MPL	MPO
MS4A1	MSTN	MX1	MX2
MYC	MYD88	NCK1	NFATC1
NFATC2	NFATC3	NFKB1	NFKB2
NFKBIA	NFRKB	NLRP3	NMI
NOD1	NOD2	NODAL	NOS2
NOTCH1	NR2C2	NR3C1	NR4A1
NR4A3	OAS1	OAS2	OSM
PDCD1	PELI1	PML	POU2F2
PPARA	PPARG	PPBP	PPIE
PPIL2	PRF1	PRKCG	PRKCZ
PRKRA	PSME1	PSME2	PTGDR2
PTGER2	PTGS2	PTPRC	RAC1
RAG1	REL	RELA	RELB
RFX1	RIPK2	RNF128	RORA
RORC	RUNX1	RUNX3	S1PR1
SELE	SELL	SFTPD	SH2D1A
SIGIRR	SLC11A1	SLIT2	SOCS1
SOCS3	SOCS5	SPP1	STAT1
STAT2	STAT3	STAT4	STAT5A
STAT6	SYK	TAP1	TAP2
TAPBP	TBK1	TBX21	TGFA
TGFB1	TGFB2	TGFB3	THAP3
THBS1	THPO	TICAM1	TICAM2
TIMP1	TIRAP	TLR1	TLR10
TLR2	TLR3	TLR4	TLR5
TLR6	TLR7	TLR8	TLR9
TMEM173	TNF	TNFRSF10A	TNFRSF11B
TNFRSF14	TNFRSF18	TNFRSF1A	TNFRSF4

Gene symbol	Gene symbol	Gene symbol	Gene symbol
TNFRSF8	TNFRSF9	TNFSF10	TNFSF11
TNFSF12	TNFSF13	TNFSF13B	TNFSF14
TNFSF4	TNFSF8	TOLLIP	TP53
TP53INP1	TRAF3	TRAF6	TXLNA
TYK2	TYMP	UBE2N	UTS2
VAV1	VCAM1	VEGFA	XCL1
XCR1	ZBTB22	ZBTB7B	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.

Trademarks: QIAGEN® (QIAGEN Group)
1100784 02/2016 © 2016 QIAGEN, all rights reserved.

www.qiagen.com

Australia ■ 1-800-243-800	Canada ■ 800-572-9613	Ireland ■ 1800 555 049	Norway ■ 800-18859
Austria ■ 0800/281010	China ■ 8621-3865-3865	Italy ■ 800-787980	Singapore ■ 1800-742-4368
Belgium ■ 0800-79612	Denmark ■ 80-885945	Japan ■ 03-6890-7300	Spain ■ 91-630-7050
Brazil ■ 0800-557779	Finland ■ 0800-914416	Korea (South) ■ 080-000-7145	Sweden ■ 020-790282
	France ■ 01-60-920-930	Luxembourg ■ 8002 2076	Switzerland ■ 055-254-22-11
	Germany ■ 02103-29-12000	Mexico ■ 01-800-7742-436	UK ■ 01293-422-911
	Hong Kong ■ 800 933 965	The Netherlands ■ 0800 0229592	USA ■ 800-426-8157



Sample to Insight