

QIAseq Targeted RNA Panels

Human Angiogenesis & Endothelial Cell Biology

Cat. no. 333002 RHS-001Z-12

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

The Human Angiogenesis & Endothelial Cell Biology QIAseq targeted RNA panel profiles the expression of 340 genes involved in angiogenesis and endothelial cell responses. In addition to its roles in normal development and physiological processes in adults such as wound healing and tissue regeneration, angiogenesis is a hallmark of many diseases including cancer, atherosclerosis, and ischemia. Angiogenesis is commonly activated in response to hypoxia, which results in stabilization of hypoxia inducible factor (HIF) and upregulation of HIF target genes. Many hypoxia inducible genes have been identified that mediate multiple biological functions in addition to angiogenesis, such as hematopoiesis, proliferation and apoptosis, and metabolism. VEGF signaling is involved in normal developmental processes but is strongly upregulated under hypoxic conditions, and pathways downstream of VEGF modulate proliferation, apoptosis and migration of endothelial cells to effect sprouting angiogenesis, neovascularization and vascular remodeling. This gene panel contains growth factors, cytokines and chemokines, kinases, phosphatases, and transcription factors with pro- or anti-angiogenic roles. Genes involved in other endothelial cell processes such as coagulation, inflammatory response, vasoconstriction and vasodilation are also present. Using digital RNA sequencing, the expression of a focused panel of genes involved in angiogenesis and endothelial cell biology 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
ACVRL1	ADAM17	ADAMTS1	ADGRB1
ADIPOQ	ADM	ADORA2B	AGER
AGGF1	AGT	AGTR1	AKT1
AKT2	AKT3	ALDOA	ALDOC
ALOX5	AMOT	ANG	ANGPT1
ANGPT2	ANGPTL1	ANGPTL4	ANKRD37
ANPEP	ANXA2	ANXA5	APEX1
APOE	APP	ARNT	ATR
BAD	BAX	BCL2	BCL2L1
BHLHE40	BLM	BMP2	BNIP3
BNIP3L	BTG1	C16orf13	CA9
CALCA	CASP1	CASP3	CASP9
CAV1	CCL11	CCL15	CCL2
CCL5	CCNG2	CD55	CD59
CDC42	CDH5	CFLAR	CHGA
COL18A1	COL4A3	COPS5	CSF3
CTGF	CTSA	CX3CL1	CXCL1
CXCL10	CXCL11	CXCL12	CXCL13
CXCL14	CXCL2	CXCL3	CXCL5
CXCL6	CXCL8	CXCL9	CXCR4
CYR61	DDIT4	DLL4	DNAJC5
EDIL3	EDN1	EDN2	EDNRA
EFNA1	EFNB2	EGF	EGLN1
EGLN2	EGR1	EIF4EBP1	ENG
ENO1	EPHA2	EPHB4	EPO
ERBB2	EREG	ERO1L	F10

Gene symbol	Gene symbol	Gene symbol	Gene symbol
F2R	F3	FAM162A	FAS
FASLG	FBRSL1	FGF1	FGF13
FGF2	FGFBP1	FGFR3	FIGF
FLT1	FLT4	FN1	FOS
FOXO4	FST	GBE1	GPI
GRB2	GRN	GRP	GYS1
HGF	HIF1A	HIF1AN	HIF3A
HK2	HMGB1	HMOX1	HNF4A
HPSE	HRAS	HSP90AA1	HSPB1
ICAM1	ID1	IER3	IFNA1
IFNB1	IFNG	IGF1	IGFBP3
IL10	IL11	IL12A	IL12B
IL17F	IL18	IL1B	IL3
IL6	IL7	ITGA5	ITGAV
ITGB1	ITGB3	JAG1	JMJD6
KDR	KIAA0586	KIT	KITLG
KLK3	KRAS	LDHA	LECT1
LEP	LGALS3	LOX	MAP2K1
MAP2K2	MAP3K1	MAP3K2	MAPK1
MAPK11	MAPK12	MAPK13	MAPK14
MAPK3	MAPKAPK2	MAPKAPK3	MDK
MET	MIF	MMP1	MMP14
MMP2	MMP9	MXI1	MYC
NAMPT	NCOA1	NDRG1	NFAT5
NFATC1	NFATC2	NFATC3	NFATC4
NFKB1	NOS3	NOTCH4	NPPB
NPR1	NRAS	NRP1	NRP2
OCLN	ODC1	P4HA1	P4HB
PDGFA	PDGFB	PDGFC	PDGFD
PDGFRA	PDK1	PECAM1	PER1
PF4	PFKFB3	PFKFB4	PFKL
PFKP	PGF	PGK1	PIK3CA
PIK3CB	PIK3CD	PIK3CG	PIK3R1
PIK3R2	PIK3R3	PIK3R5	PIM1
PKM	PLA2G10	PLA2G12A	PLA2G12B
PLA2G1B	PLA2G2A	PLA2G2D	PLA2G2E
PLA2G2F	PLA2G3	PLA2G4A	PLA2G4B
PLA2G5	PLA2G6	PLAT	PLAU
PLCG1	PLCG2	PLG	PPBP
PPIE	PPIL2	PPP3CA	PPP3CB
PPP3CC	PPP3R1	PPP3R2	PRKCA
PRKCB	PRKCG	PRL	PROCR
PROK1	PROK2	PTEN	PTGIS
PTGS1	PTGS2	PTK2	PTN

Gene symbol	Gene symbol	Gene symbol	Gene symbol
PXN	RAC1	RAC2	RAF1
RBPJ	RFX1	RHOB	RNH1
RUNX1	RUVBL2	S1PR1	SELE
SELL	SELPLG	SEMA3A	SEMA3F
SERPINC1	SERPINE1	SERPINF1	SH2D2A
SHC2	SHH	SLC16A3	SLC2A1
SLC2A3	SLIT2	SOD1	SPHK1
SPHK2	SPINK5	SRC	STAB1
STC1	TBX1	TEK	TFPI
TFRC	TGFA	TGFB1	TGFB2
TGFBR1	TGFBR2	THAP3	THBD
THBS1	THBS2	TIE1	TIMP1
TIMP2	TIMP3	TNF	TNFSF10
TNNI2	TNNI3	TP53	TPI1
TXNIP	TYMP	USF2	VASH1
VCAM1	VDAC1	VEGFA	VEGFB
VEGFC	VHL	VWF	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