

# QuantiNova® LNA® PCR Focus Panels (Rotor-Gene® Format)

## Human Th1 & Th2 Responses

Cat. no. 249950 SBHS-034ZR

For study focus gene expression analysis

### Shipping and storage

QuantiNova LNA PCR Focus Panels are shipped at ambient temperature. Immediately upon receipt, they should be stored at 2–8°C for short term storage or at –30°C to –15°C for long time storage. Under these conditions, all components are stable for at least 12 months.

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

For optimal performance, QuantiNova LNA PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova SYBR® Green PCR Kit (Mastermix) for PCR.

### Panel layout (Rotor-Gene): QuantiNova LNA PCR Focus Panel

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc® (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance. Refer to the QuantiNova LNA PCR System Handbook at [www.qiagen.com](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	BCL6	CCL11	CCL5	CCL7	CCR2	CCR3	CCR4	CCR5	CD27	CD28	CD4	CD40LG
B	CD80	CD86	CEBPB	CREBBP	CSF2	CTLA4	CXCR3	EBI3	FASLG	GATA3	GF11	PTGDR2
C	HAVCR2	ICOS	IFNG	IL10	IL12B	IL12RB2	IL13	IL13RA1	IL15	IL18	IL18R1	IL1R1
D	IL1RL1	IL2	IL24	IL25	IL27	IL27RA	IL2RA	IL3	IL4	IL4R	IL5	IL6
E	IL6R	IL7	IL7R	IL9	IRF1	IRF4	JAK1	JAK2	LAG3	LAT	LTA	MAF
F	MAPK8	NFATC1	NFATC2	PCGF2	PTPRC	SFTPD	SLC11A1	SOCS1	SOCS5	SPP1	STAT1	STAT4
G	STAT6	TBX21	TGFB3	TLR4	TLR6	TNF	TNFRSF8	TNFRSF9	TNFSF4	TYK2	VEGFA	YY1
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBH1219790	ENST00000232014.8	BCL6	ENSG00000113916	BCL6, transcription repressor Source HGNC Symbol Acc HGNC 1001
A02	SBH0204041	ENST00000305869.3	CCL11	ENSG00000172156	C-C motif chemokine ligand 11 Source HGNC Symbol Acc HGNC 10610
A03	SBH1219840	ENST00000603197.6	CCL5	ENSG00000271503	C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632
A04	SBH0098305	ENST00000378569.2	CCL7	ENSG00000108688	C-C motif chemokine ligand 7 Source HGNC Symbol Acc HGNC 10634
A05	SBH0387563	ENST00000445132.2	CCR2	ENSG00000121807	C-C motif chemokine receptor 2 Source HGNC Symbol Acc HGNC 1603
A06	SBH1219852	ENST00000545097.1	CCR3	ENSG00000183625	C-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 1604
A07	SBH1219853	ENST00000330953.5	CCR4	ENSG00000183813	C-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 1605
A08	SBH1219854	ENST00000292303.4	CCR5	ENSG00000160791	C-C motif chemokine receptor 5 (gene/pseudogene) Source HGNC Symbol Acc HGNC 1606
A09	SBH1219859	ENST00000266557.3	CD27	ENSG00000139193	CD27 molecule Source HGNC Symbol Acc HGNC 11922
A10	SBH0430835	ENST00000458610.6	CD28	ENSG00000178562	CD28 molecule Source HGNC Symbol Acc HGNC 1653
A11	SBH1219860	ENST00000011653.9	CD4	ENSG00000101610	CD4 molecule Source HGNC Symbol Acc HGNC 1678
A12	SBH1219862	ENST00000370629.6	CD40LG	ENSG00000102245	CD40 ligand Source HGNC Symbol Acc HGNC 11935
B01	SBH1219864	ENST00000264246.8	CD80	ENSG00000121594	CD80 molecule Source HGNC Symbol Acc HGNC 1700
B02	SBH0280451	ENST00000393627.6	CD86	ENSG00000114013	CD86 molecule Source HGNC Symbol Acc HGNC 1705
B03	SBH0569983	ENST00000303004.4	CEBPB	ENSG00000172216	CCAAT enhancer binding protein beta Source HGNC Symbol Acc HGNC 1834
B04	SBH0411189	ENST00000571826.5	CREBBP	ENSG00000005339	CREB binding protein Source HGNC Symbol Acc HGNC 2348
B05	SBH1219914	ENST00000296871.4	CSF2	ENSG00000164400	colony stimulating factor 2 Source HGNC Symbol Acc HGNC 2434
B06	SBH0671849	ENST00000472206.1	CTLA4	ENSG00000163599	cytotoxic T-lymphocyte associated protein 4 Source HGNC Symbol Acc HGNC 2505
B07	SBH1219934	ENST00000373693.4	CXCR3	ENSG00000186810	C-X-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 4540
B08	SBH0437108	ENST00000221847.6	EBI3	ENSG00000105246	Epstein-Barr virus induced 3 Source HGNC Symbol Acc HGNC 3129
B09	SBH1219995	ENST00000367721.3	FASLG	ENSG00000117560	Fas ligand Source HGNC Symbol Acc HGNC 11936
B10	SBH0349339	ENST00000346208.4	GATA3	ENSG00000107485	GATA binding protein 3 Source HGNC Symbol Acc HGNC 4172
B11	SBH0291118	ENST00000294702.6	GFI1	ENSG00000162676	growth factor independent 1 transcriptional repressor Source HGNC Symbol Acc HGNC 4237
B12	SBH0240434	ENST00000332539.5	PTGDR2	ENSG00000183134	prostaglandin D2 receptor 2 Source HGNC Symbol Acc HGNC 4502
C01	SBH0544261	ENST00000522902.1	HAVCR2	ENSG00000135077	hepatitis A virus cellular receptor 2 Source HGNC Symbol Acc HGNC 18437
C02	SBH0382852	ENST00000435193.1	ICOS	ENSG00000163600	inducible T cell costimulator Source HGNC Symbol Acc HGNC 5351
C03	SBH1220090	ENST00000229135.4	IFNG	ENSG00000111537	interferon gamma Source HGNC Symbol Acc HGNC 5438
C04	SBH1220095	ENST00000423557.1	IL10	ENSG00000136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
C05	SBH1220099	ENST00000231228.2	IL12B	ENSG00000113302	interleukin 12B Source HGNC Symbol Acc HGNC 5970
C06	SBH0090342	ENST00000371000.5	IL12RB2	ENSG00000081985	interleukin 12 receptor subunit beta 2 Source HGNC Symbol Acc HGNC 5972
C07	SBH0375568	ENST00000304506.7	IL13	ENSG00000169194	interleukin 13 Source HGNC Symbol Acc HGNC 5973
C08	SBH0405599	ENST00000371666.8	IL13RA1	ENSG00000131724	interleukin 13 receptor subunit alpha 1 Source HGNC Symbol Acc HGNC 5974
C09	SBH1220101	ENST00000296545.11	IL15	ENSG00000164136	interleukin 15 Source HGNC Symbol Acc HGNC 5977
C10	SBH1220103	ENST00000524595.5	IL18	ENSG00000150782	interleukin 18 Source HGNC Symbol Acc HGNC 5986
		ENST00000334		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0245173	376.4	IL18R1	115604	interleukin 18 receptor 1 Source HGNC Symbol Acc HGNC 5988
C12	SBH1220104	ENST00000424272.5	IL1R1	ENSG00000115594	interleukin 1 receptor type 1 Source HGNC Symbol Acc HGNC 5993
D01	SBH0602785	ENST00000482701.5	IL1RL1	ENSG00000115602	interleukin 1 receptor like 1 Source HGNC Symbol Acc HGNC 5998
D02	SBH0225582	ENST00000226730.4	IL2	ENSG00000109471	interleukin 2 Source HGNC Symbol Acc HGNC 6001
D03	SBH0273018	ENST00000294984.6	IL24	ENSG00000162892	interleukin 24 Source HGNC Symbol Acc HGNC 11346
D04	SBH0573219	ENST00000329715.2	IL25	ENSG00000166090	interleukin 25 Source HGNC Symbol Acc HGNC 13765
D05	SBH0629895	ENST00000356897.1	IL27	ENSG00000197272	interleukin 27 Source HGNC Symbol Acc HGNC 19157
D06	SBH0385633	ENST00000263379.4	IL27RA	ENSG00000104998	interleukin 27 receptor subunit alpha Source HGNC Symbol Acc HGNC 17290
D07	SBH0567688	ENST00000447847.1	IL2RA	ENSG00000134460	interleukin 2 receptor subunit alpha Source HGNC Symbol Acc HGNC 6008
D08	SBH0584080	ENST00000296870.2	IL3	ENSG00000164399	interleukin 3 Source HGNC Symbol Acc HGNC 6011
D09	SBH1220109	ENST00000350025.2	IL4	ENSG00000113520	interleukin 4 Source HGNC Symbol Acc HGNC 6014
D10	SBH0492526	ENST00000565915.5	IL4R	ENSG00000077238	interleukin 4 receptor Source HGNC Symbol Acc HGNC 6015
D11	SBH1220110	ENST00000231454.6	IL5	ENSG00000113525	interleukin 5 Source HGNC Symbol Acc HGNC 6016
D12	SBH1220111	ENST00000401630.7	IL6	ENSG00000136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
E01	SBH1220112	ENST00000368485.8	IL6R	ENSG00000160712	interleukin 6 receptor Source HGNC Symbol Acc HGNC 6019
E02	SBH1220113	ENST00000541183.2	IL7	ENSG00000104432	interleukin 7 Source HGNC Symbol Acc HGNC 6023
E03	SBH0481782	ENST00000514217.5	IL7R	ENSG00000168685	interleukin 7 receptor Source HGNC Symbol Acc HGNC 6024
E04	SBH1220114	ENST00000274520.1	IL9	ENSG00000145839	interleukin 9 Source HGNC Symbol Acc HGNC 6029
E05	SBH1220122	ENST00000245414.9	IRF1	ENSG00000125347	interferon regulatory factor 1 Source HGNC Symbol Acc HGNC 6116
E06	SBH0409342	ENST00000380956.9	IRF4	ENSG00000137265	interferon regulatory factor 4 Source HGNC Symbol Acc HGNC 6119
E07	SBH1220142	ENST00000342505.5	JAK1	ENSG00000162434	Janus kinase 1 Source HGNC Symbol Acc HGNC 6190
E08	SBH0334185	ENST00000381652.3	JAK2	ENSG00000096968	Janus kinase 2 Source HGNC Symbol Acc HGNC 6192
E09	SBH0171881	ENST00000538079.1	LAG3	ENSG00000089692	lymphocyte activating 3 Source HGNC Symbol Acc HGNC 6476
E10	SBH0458385	ENST00000354453.7	LAT	ENSG00000213658	linker for activation of T cells Source HGNC Symbol Acc HGNC 18874
E11	SBH0249281	ENST00000418386.2	LTA	ENSG00000226979	lymphotoxin alpha Source HGNC Symbol Acc HGNC 6709
E12	SBH0429226	ENST00000326043.5	MAF	ENSG00000178573	MAF bZIP transcription factor Source HGNC Symbol Acc HGNC 6776
F01	SBH0294318	ENST00000395611.7	MAPK8	ENSG00000107643	mitogen-activated protein kinase 8 Source HGNC Symbol Acc HGNC 6881
F02	SBH0171265	ENST00000591814.5	NFATC1	ENSG00000131196	nuclear factor of activated T cells 1 Source HGNC Symbol Acc HGNC 7775
F03	SBH0361870	ENST00000609943.5	NFATC2	ENSG00000101096	nuclear factor of activated T cells 2 Source HGNC Symbol Acc HGNC 7776
F04	SBH0438630	ENST00000616199.4	PCGF2	ENSG00000277258	polycomb group ring finger 2 Source HGNC Symbol Acc HGNC 12929
F05	SBH0081266	ENST00000491302.1	PTPRC	ENSG00000081237	protein tyrosine phosphatase, receptor type C Source HGNC Symbol Acc HGNC 9666
F06	SBH1220396	ENST00000372292.8	SFTPD	ENSG00000133661	surfactant protein D Source HGNC Symbol Acc HGNC 10803
F07	SBH1220401	ENST00000233202.11	SLC11A1	ENSG00000018280	solute carrier family 11 member 1 Source HGNC Symbol Acc HGNC 10907
F08	SBH1220412	ENST00000644787.1	SOCS1	ENSG00000185338	suppressor of cytokine signaling 1 Source HGNC Symbol Acc HGNC 19383
F09	SBH0252460	ENST00000306503.5	SOCS5	ENSG00000171150	suppressor of cytokine signaling 5 Source HGNC Symbol Acc HGNC 16852
F10	SBH0180162	ENST00000237623.11	SPP1	ENSG00000118785	secreted phosphoprotein 1 Source HGNC Symbol Acc HGNC 11255

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0333289	ENST00000361099.7	STAT1	ENSG00000115415	signal transducer and activator of transcription 1 Source HGNC Symbol Acc HGNC 11362
F12	SBH1220423	ENST00000392320.7	STAT4	ENSG00000138378	signal transducer and activator of transcription 4 Source HGNC Symbol Acc HGNC 11365
G01	SBH1220424	ENST00000300134.8	STAT6	ENSG00000116688	signal transducer and activator of transcription 6 Source HGNC Symbol Acc HGNC 11368
G02	SBH1220435	ENST00000177694.2	TBX21	ENSG00000073861	T-box 21 Source HGNC Symbol Acc HGNC 11599
G03	SBH0179529	ENST00000238682.7	TGFB3	ENSG00000119699	transforming growth factor beta 3 Source HGNC Symbol Acc HGNC 11769
G04	SBH0092782	ENST00000355622.8	TLR4	ENSG00000136869	toll like receptor 4 Source HGNC Symbol Acc HGNC 11850
G05	SBH1220464	ENST00000436693.6	TLR6	ENSG00000174130	toll like receptor 6 Source HGNC Symbol Acc HGNC 16711
G06	SBH1220471	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G07	SBH0035846	ENST00000417814.3	TNFRSF8	ENSG00000120949	TNF receptor superfamily member 8 Source HGNC Symbol Acc HGNC 11923
G08	SBH1220476	ENST00000377507.7	TNFRSF9	ENSG00000049249	TNF receptor superfamily member 9 Source HGNC Symbol Acc HGNC 11924
G09	SBH1220481	ENST00000367718.5	TNFSF4	ENSG00000117586	TNF superfamily member 4 Source HGNC Symbol Acc HGNC 11934
G10	SBH0311688	ENST00000525621.5	TYK2	ENSG00000105397	tyrosine kinase 2 Source HGNC Symbol Acc HGNC 12440
G11	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
G12	SBH0101397	ENST00000553625.5	YY1	ENSG00000100811	YY1 transcription factor Source HGNC Symbol Acc HGNC 12856
H01	SBH1220543	ENST00000646664.1	ACTB	ENSG00000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	SBH1220550	ENST00000558401.6	B2M	ENSG00000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	SBH1220545	ENST00000396861.5	GAPDH	ENSG00000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	SBH1220546	ENST00000298556.8	HPRT1	ENSG00000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	SBH1220553	ENST00000546989.5	RPLP0	ENSG00000089157	ribosomal protein lateral stalk subunit P0 Source HGNC Symbol Acc HGNC 10371
H06	SBH1218553	Sybr_HGDC	HGDC	Sybr_HGDC	Human Genomic DNA Contamination
H07	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H08	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H09	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H10	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H11	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H12	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control



## Related products

Product	Contents	Cat. no.
QuantiNova LNA PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249940
QuantiNova Reverse Transcription Kit (10)*	For 10 x 20 $\mu$ l reactions: 20 $\mu$ l 8x gDNA Removal Mix, 10 $\mu$ l Reverse Transcription Enzyme, 40 $\mu$ l Reverse Transcription Mix (containing RT primers), 20 $\mu$ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 $\mu$ l QuantiNova SYBR Green RT Mix, 20 $\mu$ l Internal Control RNA, 500 $\mu$ l Yellow Template Dilution Buffer, 250 $\mu$ l ROX Reference Dye, 1.9 $\mu$ l RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water	208052

\*Larger kit sizes available.

The QuantiNova LNA PCR Focus 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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