

# QuantiNova® LNA® PCR Focus Panels (96-Well Format and 384-Well [4 x 96] Format)

## Human Innate & Adaptive Immune Responses

Cat. no. 249950 SBHS-052ZA

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 (96-well): QuantiNova LNA PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. 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	APCS	C3	CASP1	CCL2	CCL5	CCR4	CCR5	CCR6	CCR8	CD14	CD4	CD40
B	CD40LG	CD80	CD86	CD8A	CRP	CSF2	CXCL10	CXCR3	DDX58	FASLG	FOXP3	GATA3
C	HLA-A	HLA-E	ICAM1	IFNA1	IFNAR1	IFNB1	IFNG	IFNGR1	IL10	IL13	IL17A	IL18
D	IL1A	IL1B	IL1R1	IL2	IL23A	IL4	IL5	IL6	CXCL8	IRAK1	IRF3	IRF7
E	ITGAM	JAK2	LY96	LYZ	MAPK1	MAPK8	MBL2	MPO	MX1	MYD88	NFKB1	NFKBIA
F	NLRP3	NOD1	NOD2	RAG1	RORC	SLC11A1	STAT1	STAT3	STAT4	STAT6	TBX21	TICAM1
G	TLR1	TLR2	TLR3	TLR4	TLR5	TLR6	TLR7	TLR8	TLR9	TNF	TRAF6	TYK2
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	SBH1219747	ENST00000255040.3	APCS	ENSG00000132703	amyloid P component, serum Source HGNC Symbol Acc HGNC 584
A02	SBH0244130	ENST00000245907.10	C3	ENSG00000125730	complement C3 Source HGNC Symbol Acc HGNC 1318
A03	SBH0054226	ENST00000526568.5	CASP1	ENSG00000137752	caspase 1 Source HGNC Symbol Acc HGNC 1499
A04	SBH0228134	ENST00000225831.4	CCL2	ENSG00000108691	C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618
A05	SBH1219840	ENST00000603197.6	CCL5	ENSG00000271503	C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632
A06	SBH1219853	ENST00000330953.5	CCR4	ENSG00000183813	C-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 1605
A07	SBH1219854	ENST00000292303.4	CCR5	ENSG00000160791	C-C motif chemokine receptor 5 (gene/pseudogene) Source HGNC Symbol Acc HGNC 1606
A08	SBH1219855	ENST00000646493.1	CCR6	ENSG00000112486	C-C motif chemokine receptor 6 Source HGNC Symbol Acc HGNC 1607
A09	SBH0614407	ENST00000326306.4	CCR8	ENSG00000179934	C-C motif chemokine receptor 8 Source HGNC Symbol Acc HGNC 1609
A10	SBH1219857	ENST00000512545.1	CD14	ENSG00000170458	CD14 molecule Source HGNC Symbol Acc HGNC 1628
A11	SBH1219860	ENST00000011653.9	CD4	ENSG00000101610	CD4 molecule Source HGNC Symbol Acc HGNC 1678
A12	SBH1219861	ENST00000372285.7	CD40	ENSG00000101017	CD40 molecule Source HGNC Symbol Acc HGNC 11919
B01	SBH1219862	ENST00000370629.6	CD40LG	ENSG00000102245	CD40 ligand Source HGNC Symbol Acc HGNC 11935
B02	SBH1219864	ENST00000264246.8	CD80	ENSG00000121594	CD80 molecule Source HGNC Symbol Acc HGNC 1700
B03	SBH0280451	ENST00000393627.6	CD86	ENSG00000114013	CD86 molecule Source HGNC Symbol Acc HGNC 1705
B04	SBH0013530	ENST00000283635.7	CD8A	ENSG00000153563	CD8a molecule Source HGNC Symbol Acc HGNC 1706
B05	SBH0187022	ENST00000255030.9	CRP	ENSG00000132693	C-reactive protein Source HGNC Symbol Acc HGNC 2367
B06	SBH1219914	ENST00000296871.4	CSF2	ENSG00000164400	colony stimulating factor 2 Source HGNC Symbol Acc HGNC 2434
B07	SBH1219927	ENST00000306602.3	CXCL10	ENSG00000169245	C-X-C motif chemokine ligand 10 Source HGNC Symbol Acc HGNC 10637
B08	SBH1219934	ENST00000373693.4	CXCR3	ENSG00000186810	C-X-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 4540
B09	SBH1219944	ENST00000379883.3	DDX58	ENSG00000107201	DExD/H-box helicase 58 Source HGNC Symbol Acc HGNC 19102
B10	SBH1219995	ENST00000367721.3	FASLG	ENSG00000117560	Fas ligand Source HGNC Symbol Acc HGNC 11936
B11	SBH0423236	ENST00000376199.7	FOXP3	ENSG00000049768	forkhead box P3 Source HGNC Symbol Acc HGNC 6106
B12	SBH0349339	ENST00000346208.4	GATA3	ENSG00000107485	GATA binding protein 3 Source HGNC Symbol Acc HGNC 4172
C01	SBH1220063	ENST00000376806.9	HLA-A	ENSG00000206503	major histocompatibility complex, class I, A Source HGNC Symbol Acc HGNC 4931
C02	SBH1220064	ENST00000376630.5	HLA-E	ENSG00000204592	major histocompatibility complex, class I, E Source HGNC Symbol Acc HGNC 4962
C03	SBH1220076	ENST00000264832.8	ICAM1	ENSG00000090339	intercellular adhesion molecule 1 Source HGNC Symbol Acc HGNC 5344
C04	SBH0388912	ENST00000276927.2	IFNA1	ENSG00000197919	interferon alpha 1 Source HGNC Symbol Acc HGNC 5417
C05	SBH1220087	ENST00000442071.2	IFNAR1	ENSG00000142166	interferon alpha and beta receptor subunit 1 Source HGNC Symbol Acc HGNC 5432
C06	SBH1220089	ENST00000380232.4	IFNB1	ENSG00000171855	interferon beta 1 Source HGNC Symbol Acc HGNC 5434
C07	SBH1220090	ENST00000229135.4	IFNG	ENSG00000111537	interferon gamma Source HGNC Symbol Acc HGNC 5438
C08	SBH0279641	ENST00000367739.8	IFNGR1	ENSG00000027697	interferon gamma receptor 1 Source HGNC Symbol Acc HGNC 5439
C09	SBH1220095	ENST00000423557.1	IL10	ENSG00000136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
C10	SBH0375568	ENST00000304506.7	IL13	ENSG00000169194	interleukin 13 Source HGNC Symbol Acc HGNC 5973
		ENST00000340		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0451354	057.1	IL17A	112115	interleukin 17A Source HGNC Symbol Acc HGNC 5981
C12	SBH1220103	ENST00000524595.5	IL18	ENSG00000150782	interleukin 18 Source HGNC Symbol Acc HGNC 5986
D01	SBH0663647	ENST00000263339.3	IL1A	ENSG00000115008	interleukin 1 alpha Source HGNC Symbol Acc HGNC 5991
D02	SBH0079231	ENST00000263341.6	IL1B	ENSG00000125538	interleukin 1 beta Source HGNC Symbol Acc HGNC 5992
D03	SBH1220104	ENST00000424272.5	IL1R1	ENSG00000115594	interleukin 1 receptor type 1 Source HGNC Symbol Acc HGNC 5993
D04	SBH0225582	ENST00000226730.4	IL2	ENSG00000109471	interleukin 2 Source HGNC Symbol Acc HGNC 6001
D05	SBH1220107	ENST00000228534.6	IL23A	ENSG00000110944	interleukin 23 subunit alpha Source HGNC Symbol Acc HGNC 15488
D06	SBH1220109	ENST00000350025.2	IL4	ENSG00000113520	interleukin 4 Source HGNC Symbol Acc HGNC 6014
D07	SBH1220110	ENST00000231454.6	IL5	ENSG00000113525	interleukin 5 Source HGNC Symbol Acc HGNC 6016
D08	SBH1220111	ENST00000401630.7	IL6	ENSG00000136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
D09	SBH1219932	ENST00000401931.1	CXCL8	ENSG00000169429	C-X-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 6025
D10	SBH1220119	ENST00000393687.6	IRAK1	ENSG00000184216	interleukin 1 receptor associated kinase 1 Source HGNC Symbol Acc HGNC 6112
D11	SBH1220124	ENST00000601809.5	IRF3	ENSG00000126456	interferon regulatory factor 3 Source HGNC Symbol Acc HGNC 6118
D12	SBH0251148	ENST00000397574.7	IRF7	ENSG00000185507	interferon regulatory factor 7 Source HGNC Symbol Acc HGNC 6122
E01	SBH0245852	ENST00000287497.13	ITGAM	ENSG00000169896	integrin subunit alpha M Source HGNC Symbol Acc HGNC 6149
E02	SBH0334185	ENST00000381652.3	JAK2	ENSG00000096968	Janus kinase 2 Source HGNC Symbol Acc HGNC 6192
E03	SBH1220183	ENST00000284818.6	LY96	ENSG00000154589	lymphocyte antigen 96 Source HGNC Symbol Acc HGNC 17156
E04	SBH1220184	ENST00000261267.6	LYZ	ENSG00000090382	lysozyme Source HGNC Symbol Acc HGNC 6740
E05	SBH1220192	ENST00000544786.1	MAPK1	ENSG00000100030	mitogen-activated protein kinase 1 Source HGNC Symbol Acc HGNC 6871
E06	SBH0294318	ENST00000395611.7	MAPK8	ENSG00000107643	mitogen-activated protein kinase 8 Source HGNC Symbol Acc HGNC 6881
E07	SBH0384612	ENST00000373968.3	MBL2	ENSG00000165471	mannose binding lectin 2 Source HGNC Symbol Acc HGNC 6922
E08	SBH0239322	ENST00000225275.3	MPO	ENSG00000005381	myeloperoxidase Source HGNC Symbol Acc HGNC 7218
E09	SBH1220232	ENST00000288383.10	MX1	ENSG00000157601	MX dynamin like GTPase 1 Source HGNC Symbol Acc HGNC 7532
E10	SBH0303234	ENST00000648963.1	MYD88	ENSG00000172936	MYD88, innate immune signal transduction adaptor Source HGNC Symbol Acc HGNC 7562
E11	SBH1220264	ENST00000651197.1	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
E12	SBH0552847	ENST00000216797.9	NFKBIA	ENSG00000100906	NFKB inhibitor alpha Source HGNC Symbol Acc HGNC 7797
F01	SBH1220270	ENST00000391828.7	NLRP3	ENSG00000162711	NLR family pyrin domain containing 3 Source HGNC Symbol Acc HGNC 16400
F02	SBH1220271	ENST00000222823.9	NOD1	ENSG00000106100	nucleotide binding oligomerization domain containing 1 Source HGNC Symbol Acc HGNC 16390
F03	SBH0193609	ENST00000300589.6	NOD2	ENSG00000167207	nucleotide binding oligomerization domain containing 2 Source HGNC Symbol Acc HGNC 5331
F04	SBH0667364	ENST00000299440.5	RAG1	ENSG00000166349	recombination activating 1 Source HGNC Symbol Acc HGNC 9831
F05	SBH1220375	ENST00000356728.10	RORC	ENSG00000143365	RAR related orphan receptor C Source HGNC Symbol Acc HGNC 10260
F06	SBH1220401	ENST00000233202.11	SLC11A1	ENSG00000018280	solute carrier family 11 member 1 Source HGNC Symbol Acc HGNC 10907
F07	SBH0333289	ENST00000361099.7	STAT1	ENSG00000115415	signal transducer and activator of transcription 1 Source HGNC Symbol Acc HGNC 11362
F08	SBH0341614	ENST00000404395.3	STAT3	ENSG00000168610	signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364
F09	SBH1220423	ENST00000392320.7	STAT4	ENSG00000138378	signal transducer and activator of transcription 4 Source HGNC Symbol Acc HGNC 11365
F10	SBH1220424	ENST00000300134.8	STAT6	ENSG00000166888	signal transducer and activator of transcription 6 Source HGNC Symbol Acc HGNC 11368

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220435	ENST00000177694.2	TBX21	ENSG00000073861	T-box 21 Source HGNC Symbol Acc HGNC 11599
F12	SBH1220451	ENST00000248244.5	TICAM1	ENSG000000127666	toll like receptor adaptor molecule 1 Source NCBI gene Acc 148022
G01	SBH1220460	ENST00000506146.5	TLR1	ENSG000000174125	toll like receptor 1 Source HGNC Symbol Acc HGNC 11847
G02	SBH0671922	ENST00000642700.1	TLR2	ENSG000000137462	toll like receptor 2 Source HGNC Symbol Acc HGNC 11848
G03	SBH1220462	ENST00000513189.1	TLR3	ENSG000000164342	toll like receptor 3 Source HGNC Symbol Acc HGNC 11849
G04	SBH0092782	ENST00000355622.8	TLR4	ENSG000000136869	toll like receptor 4 Source HGNC Symbol Acc HGNC 11850
G05	SBH1220463	ENST00000366881.6	TLR5	ENSG000000187554	toll like receptor 5 Source HGNC Symbol Acc HGNC 11851
G06	SBH1220464	ENST00000436693.6	TLR6	ENSG000000174130	toll like receptor 6 Source HGNC Symbol Acc HGNC 16711
G07	SBH1220465	ENST00000380659.4	TLR7	ENSG000000196664	toll like receptor 7 Source HGNC Symbol Acc HGNC 15631
G08	SBH0265788	ENST00000218032.6	TLR8	ENSG000000101916	toll like receptor 8 Source HGNC Symbol Acc HGNC 15632
G09	SBH1220466	ENST00000360658.2	TLR9	ENSG000000239732	toll like receptor 9 Source HGNC Symbol Acc HGNC 15633
G10	SBH1220471	ENST00000449264.3	TNF	ENSG000000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G11	SBH1220493	ENST00000526995.6	TRAF6	ENSG000000175104	TNF receptor associated factor 6 Source HGNC Symbol Acc HGNC 12036
G12	SBH0311688	ENST00000525621.5	TYK2	ENSG000000105397	tyrosine kinase 2 Source HGNC Symbol Acc HGNC 12440
H01	SBH1220543	ENST00000646664.1	ACTB	ENSG000000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	SBH1220550	ENST00000558401.6	B2M	ENSG000000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	SBH1220545	ENST00000396861.5	GAPDH	ENSG000000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	SBH1220546	ENST00000298556.8	HPRT1	ENSG000000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	SBH1220553	ENST00000546989.5	RPLP0	ENSG000000089157	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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