

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

## Human Cancer Inflammation & Immunity Crosstalk

Cat. no. 249950 SBHS-181ZA

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	ACKR3	AICDA	BCL2	BCL2L1	CCL18	CCL2	CCL20	CCL21	CCL22	CCL28	CCL4	CCL5
B	CCR1	CCR10	CCR2	CCR4	CCR7	CCR9	CD274	CSF1	CSF2	CSF3	CTLA4	CXCL1
C	CXCL10	CXCL11	CXCL12	CXCL2	CXCL5	CXCL9	CXCR1	CXCR2	CXCR3	CXCR4	CXCR5	EGF
D	EGFR	FASLG	FOXP3	GBP1	GZMA	GZMB	HIF1A	HLA-A	HLA-B	HLA-C	IDO1	IFNG
E	IGF1	IL10	IL12A	IL12B	IL13	IL15	IL17A	IL1A	IL1B	IL2	IL23A	IL4
F	IL6	CXCL8	IRF1	KITLG	MICA	MICB	MIF	MYC	MYD88	NFKB1	NOS2	PDCD1
G	PTGS2	SPP1	STAT1	STAT3	TGFB1	TLR2	TLR3	TLR4	TNF	TNFSF10	TP53	VEGFA
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	SBH0154530	ENST00000272928.4	ACKR3	ENSG00000144476	atypical chemokine receptor 3 Source HGNC Symbol Acc HGNC 23692
A02	SBH0191605	ENST00000544516.5	AICDA	ENSG00000111732	activation induced cytidine deaminase Source HGNC Symbol Acc HGNC 13203
A03	SBH1219786	ENST00000398117.1	BCL2	ENSG00000171791	BCL2, apoptosis regulator Source HGNC Symbol Acc HGNC 990
A04	SBH0216029	ENST00000450273.1	BCL2L1	ENSG00000171552	BCL2 like 1 Source HGNC Symbol Acc HGNC 992
A05	SBH0292440	ENST00000616054.1	CCL18	ENSG00000275385	C-C motif chemokine ligand 18 Source HGNC Symbol Acc HGNC 10616
A06	SBH0228134	ENST00000225831.4	CCL2	ENSG00000108691	C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618
A07	SBH1219834	ENST00000409189.7	CCL20	ENSG00000115009	C-C motif chemokine ligand 20 Source HGNC Symbol Acc HGNC 10619
A08	SBH1219835	ENST00000259607.7	CCL21	ENSG00000137077	C-C motif chemokine ligand 21 Source HGNC Symbol Acc HGNC 10620
A09	SBH1219836	ENST00000219235.5	CCL22	ENSG00000102962	C-C motif chemokine ligand 22 Source HGNC Symbol Acc HGNC 10621
A10	SBH0158704	ENST00000489442.5	CCL28	ENSG00000151882	C-C motif chemokine ligand 28 Source HGNC Symbol Acc HGNC 17700
A11	SBH1219839	ENST00000615863.2	CCL4	ENSG00000275302	C-C motif chemokine ligand 4 Source HGNC Symbol Acc HGNC 10630
A12	SBH1219840	ENST00000603197.6	CCL5	ENSG00000271503	C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632
B01	SBH1219851	ENST00000296140.4	CCR1	ENSG00000163823	C-C motif chemokine receptor 1 Source HGNC Symbol Acc HGNC 1602
B02	SBH0199269	ENST00000591765.1	CCR10	ENSG00000184451	C-C motif chemokine receptor 10 Source HGNC Symbol Acc HGNC 4474
B03	SBH0387563	ENST00000445132.2	CCR2	ENSG00000121807	C-C motif chemokine receptor 2 Source HGNC Symbol Acc HGNC 1603
B04	SBH1219853	ENST00000330953.5	CCR4	ENSG00000183813	C-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 1605
B05	SBH0112550	ENST00000246657.2	CCR7	ENSG00000126353	C-C motif chemokine receptor 7 Source HGNC Symbol Acc HGNC 1608
B06	SBH0201575	ENST00000357632.7	CCR9	ENSG00000173585	C-C motif chemokine receptor 9 Source HGNC Symbol Acc HGNC 1610
B07	SBH0427581	ENST00000498261.1	CD274	ENSG00000120217	CD274 molecule Source HGNC Symbol Acc HGNC 17635
B08	SBH1219913	ENST00000420111.6	CSF1	ENSG00000184371	colony stimulating factor 1 Source HGNC Symbol Acc HGNC 2432
B09	SBH1219914	ENST00000296871.4	CSF2	ENSG00000164400	colony stimulating factor 2 Source HGNC Symbol Acc HGNC 2434
B10	SBH0378721	ENST00000225474.6	CSF3	ENSG00000108342	colony stimulating factor 3 Source HGNC Symbol Acc HGNC 2438
B11	SBH0671849	ENST00000472206.1	CTLA4	ENSG00000163599	cytotoxic T-lymphocyte associated protein 4 Source HGNC Symbol Acc HGNC 2505
B12	SBH0404660	ENST00000395761.3	CXCL1	ENSG00000163739	C-X-C motif chemokine ligand 1 Source HGNC Symbol Acc HGNC 4602
C01	SBH1219927	ENST00000306602.3	CXCL10	ENSG00000169245	C-X-C motif chemokine ligand 10 Source HGNC Symbol Acc HGNC 10637
C02	SBH0419056	ENST00000306621.7	CXCL11	ENSG00000169248	C-X-C motif chemokine ligand 11 Source HGNC Symbol Acc HGNC 10638
C03	SBH0010818	ENST00000374429.6	CXCL12	ENSG00000107562	C-X-C motif chemokine ligand 12 Source HGNC Symbol Acc HGNC 10672
C04	SBH1219929	ENST00000508487.3	CXCL2	ENSG00000081041	C-X-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 4603
C05	SBH1219930	ENST00000296027.5	CXCL5	ENSG00000163735	C-X-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10642
C06	SBH0383348	ENST00000264888.5	CXCL9	ENSG00000138755	C-X-C motif chemokine ligand 9 Source HGNC Symbol Acc HGNC 7098
C07	SBH0591583	ENST00000295683.2	CXCR1	ENSG00000163464	C-X-C motif chemokine receptor 1 Source HGNC Symbol Acc HGNC 6026
C08	SBH1219933	ENST00000318507.7	CXCR2	ENSG00000180871	C-X-C motif chemokine receptor 2 Source HGNC Symbol Acc HGNC 6027
C09	SBH1219934	ENST00000373693.4	CXCR3	ENSG00000186810	C-X-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 4540
C10	SBH0591410	ENST00000241393.3	CXCR4	ENSG00000121966	C-X-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 2561
		ENST00000292		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0394764	174.4	CXCR5	160683	C-X-C motif chemokine receptor 5 Source HGNC Symbol Acc HGNC 1060
C12	SBH0321686	ENST00000265 171.9	EGF	ENSG00000 138798	epidermal growth factor Source HGNC Symbol Acc HGNC 3229
D01	SBH1219970	ENST00000454 757.6	EGFR	ENSG00000 146648	epidermal growth factor receptor Source HGNC Symbol Acc HGNC 3236
D02	SBH1219995	ENST00000367 721.3	FASLG	ENSG00000 117560	Fas ligand Source HGNC Symbol Acc HGNC 11936
D03	SBH0423236	ENST00000376 199.7	FOXP3	ENSG00000 049768	forkhead box P3 Source HGNC Symbol Acc HGNC 6106
D04	SBH0258427	ENST00000469 194.1	GBP1	ENSG00000 117228	guanylate binding protein 1 Source HGNC Symbol Acc HGNC 4182
D05	SBH0311276	ENST00000274 306.7	GZMA	ENSG00000 145649	granzyme A Source HGNC Symbol Acc HGNC 4708
D06	SBH0351472	ENST00000382 540.5	GZMB	ENSG00000 100453	granzyme B Source HGNC Symbol Acc HGNC 4709
D07	SBH1220060	ENST00000323 441.10	HIF1A	ENSG00000 100644	hypoxia inducible factor 1 subunit alpha Source HGNC Symbol Acc HGNC 4910
D08	SBH1220063	ENST00000376 806.9	HLA-A	ENSG00000 206503	major histocompatibility complex, class I, A Source HGNC Symbol Acc HGNC 4931
D09	SBH0179046	ENST00000474 381.1	HLA-B	ENSG00000 234745	major histocompatibility complex, class I, B Source HGNC Symbol Acc HGNC 4932
D10	SBH0132142	ENST00000487 245.5	HLA-C	ENSG00000 204525	major histocompatibility complex, class I, C Source HGNC Symbol Acc HGNC 4933
D11	SBH0084217	ENST00000253 513.11	IDO1	ENSG00000 131203	indoleamine 2,3-dioxygenase 1 Source HGNC Symbol Acc HGNC 6059
D12	SBH1220090	ENST00000229 135.4	IFNG	ENSG00000 111537	interferon gamma Source HGNC Symbol Acc HGNC 5438
E01	SBH1220091	ENST00000337 514.10	IGF1	ENSG00000 017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
E02	SBH1220095	ENST00000423 557.1	IL10	ENSG00000 136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
E03	SBH1220098	ENST00000305 579.7	IL12A	ENSG00000 168811	interleukin 12A Source HGNC Symbol Acc HGNC 5969
E04	SBH1220099	ENST00000231 228.2	IL12B	ENSG00000 113302	interleukin 12B Source HGNC Symbol Acc HGNC 5970
E05	SBH0375568	ENST00000304 506.7	IL13	ENSG00000 169194	interleukin 13 Source HGNC Symbol Acc HGNC 5973
E06	SBH1220101	ENST00000296 545.11	IL15	ENSG00000 164136	interleukin 15 Source HGNC Symbol Acc HGNC 5977
E07	SBH0451354	ENST00000340 057.1	IL17A	ENSG00000 112115	interleukin 17A Source HGNC Symbol Acc HGNC 5981
E08	SBH0663647	ENST00000263 339.3	IL1A	ENSG00000 115008	interleukin 1 alpha Source HGNC Symbol Acc HGNC 5991
E09	SBH0079231	ENST00000263 341.6	IL1B	ENSG00000 125538	interleukin 1 beta Source HGNC Symbol Acc HGNC 5992
E10	SBH0225582	ENST00000226 730.4	IL2	ENSG00000 109471	interleukin 2 Source HGNC Symbol Acc HGNC 6001
E11	SBH1220107	ENST00000228 534.6	IL23A	ENSG00000 110944	interleukin 23 subunit alpha Source HGNC Symbol Acc HGNC 15488
E12	SBH1220109	ENST00000350 025.2	IL4	ENSG00000 113520	interleukin 4 Source HGNC Symbol Acc HGNC 6014
F01	SBH1220111	ENST00000401 630.7	IL6	ENSG00000 136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
F02	SBH1219932	ENST00000401 931.1	CXCL8	ENSG00000 169429	C-X-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 6025
F03	SBH1220122	ENST00000245 414.9	IRF1	ENSG00000 125347	interferon regulatory factor 1 Source HGNC Symbol Acc HGNC 6116
F04	SBH0076738	ENST00000644 744.1	KITLG	ENSG00000 049130	KIT ligand Source HGNC Symbol Acc HGNC 6343
F05	SBH0665598	ENST00000421 350.1	MICA	ENSG00000 204520	MHC class I polypeptide-related sequence A Source HGNC Symbol Acc HGNC 7090
F06	SBH0415608	ENST00000399 150.7	MICB	ENSG00000 204516	MHC class I polypeptide-related sequence B Source HGNC Symbol Acc HGNC 7091
F07	SBH1220212	ENST00000215 754.8	MIF	ENSG00000 240972	macrophage migration inhibitory factor Source HGNC Symbol Acc HGNC 7097
F08	SBH0426145	ENST00000524 013.1	MYC	ENSG00000 136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
F09	SBH0303234	ENST00000648 963.1	MYD88	ENSG00000 172936	MYD88, innate immune signal transduction adaptor Source HGNC Symbol Acc HGNC 7562
F10	SBH1220264	ENST00000651 197.1	NFKB1	ENSG00000 109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0408796	ENST00000313735.10	NOS2	ENSG000000071171	nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873
F12	SBH0300057	ENST00000343705.3	PDCD1	ENSG000000188389	programmed cell death 1 Source HGNC Symbol Acc HGNC 8760
G01	SBH1220344	ENST00000367468.10	PTGS2	ENSG000000073756	prostaglandin-endoperoxide synthase 2 Source HGNC Symbol Acc HGNC 9605
G02	SBH0180162	ENST00000237623.11	SPP1	ENSG000000118785	secreted phosphoprotein 1 Source HGNC Symbol Acc HGNC 11255
G03	SBH0333289	ENST00000361099.7	STAT1	ENSG000000115415	signal transducer and activator of transcription 1 Source HGNC Symbol Acc HGNC 11362
G04	SBH0341614	ENST00000404395.3	STAT3	ENSG000000168610	signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364
G05	SBH1220443	ENST00000598758.5	TGFB1	ENSG000000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G06	SBH0671922	ENST00000642700.1	TLR2	ENSG000000137462	toll like receptor 2 Source HGNC Symbol Acc HGNC 11848
G07	SBH1220462	ENST00000513189.1	TLR3	ENSG000000164342	toll like receptor 3 Source HGNC Symbol Acc HGNC 11849
G08	SBH0092782	ENST00000355622.8	TLR4	ENSG000000136869	toll like receptor 4 Source HGNC Symbol Acc HGNC 11850
G09	SBH1220471	ENST00000449264.3	TNF	ENSG000000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G10	SBH1220477	ENST00000241261.7	TNFSF10	ENSG000000121858	TNF superfamily member 10 Source HGNC Symbol Acc HGNC 11925
G11	SBH1220486	ENST00000445888.6	TP53	ENSG000000141510	tumor protein p53 Source HGNC Symbol Acc HGNC 11998
G12	SBH0420322	ENST00000425836.6	VEGFA	ENSG000000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
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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