

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

## Human Chemokines & Receptors

Cat. no. 249950 SBHS-022ZA

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	C5	C5AR1	ACKR2	CCL1	CCL11	CCL13	CCL14	CCL15	CCL16	CCL17	CCL18	CCL19
B	CCL2	CCL20	CCL21	CCL22	CCL23	CCL24	CCL25	CCL26	CCL27	CCL28	CCL3	CCL4
C	CCL5	CCL7	CCL8	CCR1	CCR10	CCR2	CCR3	CCR4	CCR5	CCR6	CCR7	CCR8
D	CCR9	ACKR4	CCRL2	CKLF	CMKLR1	CMTM1	CMTM2	CMTM3	CMTM4	CX3CL1	CX3CR1	CXCL1
E	CXCL10	CXCL11	CXCL12	CXCL13	CXCL14	CXCL16	CXCL2	CXCL3	CXCL5	CXCL6	CXCL9	CXCR1
F	CXCR2	CXCR3	CXCR4	CXCR5	CXCR6	ACKR3	ACKR1	FPR1	GPR17	HIF1A	IL16	IL1B
G	IL4	CXCL8	PF4V1	PPBP	SLIT2	TLR2	TLR4	TNF	TYMP	XCL1	XCL2	XCR1
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	SBH0105500	ENST00000223642.2	C5	ENSG00000106804	complement C5 Source HGNC Symbol Acc HGNC 1331
A02	SBH0627132	ENST00000355085.4	C5AR1	ENSG00000197405	complement C5a receptor 1 Source HGNC Symbol Acc HGNC 1338
A03	SBH0649415	ENST00000442925.5	ACKR2	ENSG00000144648	atypical chemokine receptor 2 Source HGNC Symbol Acc HGNC 1565
A04	SBH0608459	ENST00000225842.3	CCL1	ENSG00000108702	C-C motif chemokine ligand 1 Source HGNC Symbol Acc HGNC 10609
A05	SBH0204041	ENST00000305869.3	CCL11	ENSG00000172156	C-C motif chemokine ligand 11 Source HGNC Symbol Acc HGNC 10610
A06	SBH1219830	ENST00000225844.7	CCL13	ENSG00000181374	C-C motif chemokine ligand 13 Source HGNC Symbol Acc HGNC 10611
A07	SBH0402429	ENST00000622526.1	CCL14	ENSG00000276409	C-C motif chemokine ligand 14 Source HGNC Symbol Acc HGNC 10612
A08	SBH1219831	ENST00000617897.2	CCL15	ENSG00000275718	C-C motif chemokine ligand 15 Source HGNC Symbol Acc HGNC 10613
A09	SBH1219832	ENST00000611905.2	CCL16	ENSG00000275152	C-C motif chemokine ligand 16 Source HGNC Symbol Acc HGNC 10614
A10	SBH0262255	ENST00000219244.8	CCL17	ENSG00000102970	C-C motif chemokine ligand 17 Source HGNC Symbol Acc HGNC 10615
A11	SBH0292440	ENST00000616054.1	CCL18	ENSG00000275385	C-C motif chemokine ligand 18 Source HGNC Symbol Acc HGNC 10616
A12	SBH1219833	ENST00000311925.7	CCL19	ENSG00000172724	C-C motif chemokine ligand 19 Source HGNC Symbol Acc HGNC 10617
B01	SBH0228134	ENST00000225831.4	CCL2	ENSG00000108691	C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618
B02	SBH1219834	ENST00000409189.7	CCL20	ENSG00000115009	C-C motif chemokine ligand 20 Source HGNC Symbol Acc HGNC 10619
B03	SBH1219835	ENST00000259607.7	CCL21	ENSG00000137077	C-C motif chemokine ligand 21 Source HGNC Symbol Acc HGNC 10620
B04	SBH1219836	ENST00000219235.5	CCL22	ENSG00000102962	C-C motif chemokine ligand 22 Source HGNC Symbol Acc HGNC 10621
B05	SBH1219837	ENST00000615050.2	CCL23	ENSG00000274736	C-C motif chemokine ligand 23 Source HGNC Symbol Acc HGNC 10622
B06	SBH0329993	ENST00000222902.6	CCL24	ENSG00000106178	C-C motif chemokine ligand 24 Source HGNC Symbol Acc HGNC 10623
B07	SBH0405449	ENST00000390669.7	CCL25	ENSG00000131142	C-C motif chemokine ligand 25 Source HGNC Symbol Acc HGNC 10624
B08	SBH0236994	ENST00000394905.2	CCL26	ENSG00000006606	C-C motif chemokine ligand 26 Source HGNC Symbol Acc HGNC 10625
B09	SBH0329163	ENST00000259631.4	CCL27	ENSG00000213927	C-C motif chemokine ligand 27 Source HGNC Symbol Acc HGNC 10626
B10	SBH0158704	ENST00000489442.5	CCL28	ENSG00000151882	C-C motif chemokine ligand 28 Source HGNC Symbol Acc HGNC 17700
B11	SBH1219838	ENST00000613922.2	CCL3	ENSG00000277632	C-C motif chemokine ligand 3 Source HGNC Symbol Acc HGNC 10627
B12	SBH1219839	ENST00000615863.2	CCL4	ENSG00000275302	C-C motif chemokine ligand 4 Source HGNC Symbol Acc HGNC 10630
C01	SBH1219840	ENST00000603197.6	CCL5	ENSG00000271503	C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632
C02	SBH0098305	ENST00000378569.2	CCL7	ENSG00000108688	C-C motif chemokine ligand 7 Source HGNC Symbol Acc HGNC 10634
C03	SBH1219841	ENST00000394620.2	CCL8	ENSG00000108700	C-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 10635
C04	SBH1219851	ENST00000296140.4	CCR1	ENSG00000163823	C-C motif chemokine receptor 1 Source HGNC Symbol Acc HGNC 1602
C05	SBH0199269	ENST00000591765.1	CCR10	ENSG00000184451	C-C motif chemokine receptor 10 Source HGNC Symbol Acc HGNC 4474
C06	SBH0387563	ENST00000445132.2	CCR2	ENSG00000121807	C-C motif chemokine receptor 2 Source HGNC Symbol Acc HGNC 1603
C07	SBH1219852	ENST00000545097.1	CCR3	ENSG00000183625	C-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 1604
C08	SBH1219853	ENST00000330953.5	CCR4	ENSG00000183813	C-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 1605
C09	SBH1219854	ENST00000292303.4	CCR5	ENSG00000160791	C-C motif chemokine receptor 5 (gene/pseudogene) Source HGNC Symbol Acc HGNC 1606
C10	SBH1219855	ENST00000646493.1	CCR6	ENSG00000112486	C-C motif chemokine receptor 6 Source HGNC Symbol Acc HGNC 1607
		ENST00000246		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0112550	657.2	CCR7	126353	C-C motif chemokine receptor 7 Source HGNC Symbol Acc HGNC 1608
C12	SBH0614407	ENST00000326306.4	CCR8	ENSG00000179934	C-C motif chemokine receptor 8 Source HGNC Symbol Acc HGNC 1609
D01	SBH0201575	ENST00000357632.7	CCR9	ENSG00000173585	C-C motif chemokine receptor 9 Source HGNC Symbol Acc HGNC 1610
D02	SBH0625001	ENST00000249887.2	ACKR4	ENSG00000129048	atypical chemokine receptor 4 Source HGNC Symbol Acc HGNC 1611
D03	SBH0243692	ENST00000399036.4	CCRL2	ENSG00000121797	C-C motif chemokine receptor like 2 Source HGNC Symbol Acc HGNC 1612
D04	SBH0520486	ENST00000362093.4	CKLF	ENSG00000217555	chemokine like factor Source HGNC Symbol Acc HGNC 13253
D05	SBH0290650	ENST00000550573.5	CMKLR1	ENSG00000174600	chemerin chemokine-like receptor 1 Source HGNC Symbol Acc HGNC 2121
D06	SBH0417304	ENST00000336328.10	CMTM1	ENSG00000089505	CKLF like MARVEL transmembrane domain containing 1 Source HGNC Symbol Acc HGNC 19172
D07	SBH0308694	ENST00000379486.6	CMTM2	ENSG00000140932	CKLF like MARVEL transmembrane domain containing 2 Source HGNC Symbol Acc HGNC 19173
D08	SBH0611816	ENST00000564060.5	CMTM3	ENSG00000140931	CKLF like MARVEL transmembrane domain containing 3 Source HGNC Symbol Acc HGNC 19174
D09	SBH0198458	ENST00000563952.1	CMTM4	ENSG00000183723	CKLF like MARVEL transmembrane domain containing 4 Source HGNC Symbol Acc HGNC 19175
D10	SBH1219926	ENST00000563383.1	CX3CL1	ENSG00000006210	C-X3-C motif chemokine ligand 1 Source HGNC Symbol Acc HGNC 10647
D11	SBH0005890	ENST00000399220.2	CX3CR1	ENSG00000168329	C-X3-C motif chemokine receptor 1 Source HGNC Symbol Acc HGNC 2558
D12	SBH0404660	ENST00000395761.3	CXCL1	ENSG00000163739	C-X-C motif chemokine ligand 1 Source HGNC Symbol Acc HGNC 4602
E01	SBH1219927	ENST00000306602.3	CXCL10	ENSG00000169245	C-X-C motif chemokine ligand 10 Source HGNC Symbol Acc HGNC 10637
E02	SBH0419056	ENST00000306621.7	CXCL11	ENSG00000169248	C-X-C motif chemokine ligand 11 Source HGNC Symbol Acc HGNC 10638
E03	SBH0010818	ENST00000374429.6	CXCL12	ENSG00000107562	C-X-C motif chemokine ligand 12 Source HGNC Symbol Acc HGNC 10672
E04	SBH0479528	ENST00000286758.4	CXCL13	ENSG00000156234	C-X-C motif chemokine ligand 13 Source HGNC Symbol Acc HGNC 10639
E05	SBH0421604	ENST00000337225.5	CXCL14	ENSG00000145824	C-X-C motif chemokine ligand 14 Source HGNC Symbol Acc HGNC 10640
E06	SBH1219928	ENST00000293778.11	CXCL16	ENSG00000161921	C-X-C motif chemokine ligand 16 Source HGNC Symbol Acc HGNC 16642
E07	SBH1219929	ENST00000508487.3	CXCL2	ENSG00000081041	C-X-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 4603
E08	SBH0584763	ENST00000296026.4	CXCL3	ENSG00000163734	C-X-C motif chemokine ligand 3 Source HGNC Symbol Acc HGNC 4604
E09	SBH1219930	ENST00000296027.5	CXCL5	ENSG00000163735	C-X-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10642
E10	SBH1219931	ENST00000226317.10	CXCL6	ENSG00000124875	C-X-C motif chemokine ligand 6 Source HGNC Symbol Acc HGNC 10643
E11	SBH0383348	ENST00000264888.5	CXCL9	ENSG00000138755	C-X-C motif chemokine ligand 9 Source HGNC Symbol Acc HGNC 7098
E12	SBH0591583	ENST00000295683.2	CXCR1	ENSG00000163464	C-X-C motif chemokine receptor 1 Source HGNC Symbol Acc HGNC 6026
F01	SBH1219933	ENST00000318507.7	CXCR2	ENSG00000180871	C-X-C motif chemokine receptor 2 Source HGNC Symbol Acc HGNC 6027
F02	SBH1219934	ENST00000373693.4	CXCR3	ENSG00000186810	C-X-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 4540
F03	SBH0591410	ENST00000241393.3	CXCR4	ENSG00000121966	C-X-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 2561
F04	SBH0394764	ENST00000292174.4	CXCR5	ENSG00000160683	C-X-C motif chemokine receptor 5 Source HGNC Symbol Acc HGNC 1060
F05	SBH0240190	ENST00000438735.1	CXCR6	ENSG00000172215	C-X-C motif chemokine receptor 6 Source HGNC Symbol Acc HGNC 16647
F06	SBH0154530	ENST00000272928.4	ACKR3	ENSG00000144476	atypical chemokine receptor 3 Source HGNC Symbol Acc HGNC 23692
F07	SBH0007100	ENST00000368121.5	ACKR1	ENSG00000213088	atypical chemokine receptor 1 (Duffy blood group) Source HGNC Symbol Acc HGNC 4035
F08	SBH0123964	ENST00000304748.4	FPR1	ENSG00000171051	formyl peptide receptor 1 Source HGNC Symbol Acc HGNC 3826
F09	SBH0348543	ENST00000486700.1	GPR17	ENSG00000144230	G protein-coupled receptor 17 Source HGNC Symbol Acc HGNC 4471
F10	SBH1220060	ENST00000323441.10	HIF1A	ENSG00000100644	hypoxia inducible factor 1 subunit alpha Source HGNC Symbol Acc HGNC 4910

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220102	ENST00000394660.6	IL16	ENSG00000172349	interleukin 16 Source HGNC Symbol Acc HGNC 5980
F12	SBH0079231	ENST00000263341.6	IL1B	ENSG00000125538	interleukin 1 beta Source HGNC Symbol Acc HGNC 5992
G01	SBH1220109	ENST00000350025.2	IL4	ENSG00000113520	interleukin 4 Source HGNC Symbol Acc HGNC 6014
G02	SBH1219932	ENST00000401931.1	CXCL8	ENSG00000169429	C-X-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 6025
G03	SBH0278726	ENST00000226524.4	PF4V1	ENSG00000109272	platelet factor 4 variant 1 Source HGNC Symbol Acc HGNC 8862
G04	SBH1220324	ENST00000296028.4	PPBP	ENSG00000163736	pro-platelet basic protein Source HGNC Symbol Acc HGNC 9240
G05	SBH0363286	ENST00000504154.6	SLIT2	ENSG00000145147	slit guidance ligand 2 Source HGNC Symbol Acc HGNC 11086
G06	SBH0671922	ENST00000642700.1	TLR2	ENSG00000137462	toll like receptor 2 Source HGNC Symbol Acc HGNC 11848
G07	SBH0092782	ENST00000355622.8	TLR4	ENSG00000136869	toll like receptor 4 Source HGNC Symbol Acc HGNC 11850
G08	SBH1220471	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G09	SBH1220500	ENST00000395681.6	TYMP	ENSG00000025708	thymidine phosphorylase Source HGNC Symbol Acc HGNC 3148
G10	SBH0434671	ENST00000367818.4	XCL1	ENSG00000143184	X-C motif chemokine ligand 1 Source HGNC Symbol Acc HGNC 10645
G11	SBH0575860	ENST00000367819.3	XCL2	ENSG00000143185	X-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10646
G12	SBH0496541	ENST00000309285.3	XCR1	ENSG00000173578	X-C motif chemokine receptor 1 Source HGNC Symbol Acc HGNC 1625
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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