

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

## Human Allergy & Asthma

Cat. no. 249950 SBHS-067ZA

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	ADAM33	ADRB2	ALOX5	AREG	ARG1	BCL6	CCL11	CCL17	CCL2	CCL22	CCL24	CCL26
B	CCL5	CCL8	CCR3	CCR4	CCR8	CD40LG	CHI3L1	CHIA	CLC	CLCA1	CMA1	CPA3
C	CRLF2	CSF2	CSF3R	CYSLTR1	EPX	FCER1A	FOXP3	GATA3	PTGDR2	ICOS	IFNG	IFNGR2
D	IL10	IL12A	IL12B	IL13	IL13RA1	IL13RA2	IL17A	IL17RB	IL18	IL1RL1	IL21	IL25
E	IL2RA	IL3	IL31	IL33	IL3RA	IL4	IL4R	IL5	IL5RA	IL9	KIT	KITLG
F	LTB4R	MAF	MMP9	MRC1	MS4A2	PDCD1	PMCH	POSTN	PPARG	PRG2	RETNLB	RNASE2
G	RNASE3	RORC	SATB1	SIGLEC8	STAT5A	STAT6	TBX21	TGFB1	TNFRSF4	TNFSF4	TPSAB1	TSLP
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	SBH0522383	ENST00000379861.8	ADAM33	ENSG00000149451	ADAM metallopeptidase domain 33 Source HGNC Symbol Acc HGNC 15478
A02	SBH0519738	ENST000003305988.5	ADRB2	ENSG00000169252	adrenoceptor beta 2 Source HGNC Symbol Acc HGNC 286
A03	SBH1219736	ENST00000374391.7	ALOX5	ENSG00000012779	arachidonate 5-lipoxygenase Source HGNC Symbol Acc HGNC 435
A04	SBH0390048	ENST00000502307.1	AREG	ENSG00000109321	amphiregulin Source HGNC Symbol Acc HGNC 651
A05	SBH0030017	ENST00000469293.1	ARG1	ENSG00000118520	arginase 1 Source HGNC Symbol Acc HGNC 663
A06	SBH1219790	ENST00000232014.8	BCL6	ENSG00000113916	BCL6, transcription repressor Source HGNC Symbol Acc HGNC 1001
A07	SBH0204041	ENST000003305869.3	CCL11	ENSG00000172156	C-C motif chemokine ligand 11 Source HGNC Symbol Acc HGNC 10610
A08	SBH0262255	ENST00000219244.8	CCL17	ENSG00000102970	C-C motif chemokine ligand 17 Source HGNC Symbol Acc HGNC 10615
A09	SBH0228134	ENST00000225831.4	CCL2	ENSG00000108691	C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618
A10	SBH1219836	ENST00000219235.5	CCL22	ENSG00000102962	C-C motif chemokine ligand 22 Source HGNC Symbol Acc HGNC 10621
A11	SBH0329993	ENST00000222902.6	CCL24	ENSG00000106178	C-C motif chemokine ligand 24 Source HGNC Symbol Acc HGNC 10623
A12	SBH0236994	ENST00000394905.2	CCL26	ENSG00000006606	C-C motif chemokine ligand 26 Source HGNC Symbol Acc HGNC 10625
B01	SBH1219840	ENST00000603197.6	CCL5	ENSG00000271503	C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632
B02	SBH1219841	ENST00000394620.2	CCL8	ENSG00000108700	C-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 10635
B03	SBH1219852	ENST00000545097.1	CCR3	ENSG00000183625	C-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 1604
B04	SBH1219853	ENST00000330953.5	CCR4	ENSG00000183813	C-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 1605
B05	SBH0614407	ENST00000326306.4	CCR8	ENSG00000179934	C-C motif chemokine receptor 8 Source HGNC Symbol Acc HGNC 1609
B06	SBH1219862	ENST00000370629.6	CD40LG	ENSG00000102245	CD40 ligand Source HGNC Symbol Acc HGNC 11935
B07	SBH0231136	ENST00000404436.2	CHI3L1	ENSG00000133048	chitinase 3 like 1 Source HGNC Symbol Acc HGNC 1932
B08	SBH0585338	ENST00000353665.10	CHIA	ENSG00000134216	chitinase, acidic Source HGNC Symbol Acc HGNC 17432
B09	SBH0003745	ENST00000221804.5	CLC	ENSG00000105205	Charcot-Leyden crystal galectin Source HGNC Symbol Acc HGNC 2014
B10	SBH0170975	ENST00000234701.7	CLCA1	ENSG00000016490	chloride channel accessory 1 Source HGNC Symbol Acc HGNC 2015
B11	SBH0121524	ENST00000206446.4	CMA1	ENSG00000092009	chymase 1 Source HGNC Symbol Acc HGNC 2097
B12	SBH0330514	ENST00000477926.1	CPA3	ENSG00000163751	carboxypeptidase A3 Source HGNC Symbol Acc HGNC 2298
C01	SBH0118945	ENST00000467626.6	CRLF2	ENSG00000205755	cytokine receptor like factor 2 Source HGNC Symbol Acc HGNC 14281
C02	SBH1219914	ENST00000296871.4	CSF2	ENSG00000164400	colony stimulating factor 2 Source HGNC Symbol Acc HGNC 2434
C03	SBH0129751	ENST00000464365.2	CSF3R	ENSG00000119535	colony stimulating factor 3 receptor Source HGNC Symbol Acc HGNC 2439
C04	SBH0585130	ENST00000614798.1	CYSLTR1	ENSG00000173198	cysteinyl leukotriene receptor 1 Source HGNC Symbol Acc HGNC 17451
C05	SBH1219980	ENST00000225371.6	EPX	ENSG00000121053	eosinophil peroxidase Source HGNC Symbol Acc HGNC 3423
C06	SBH0529269	ENST00000368114.1	FCER1A	ENSG00000179639	Fc fragment of IgE receptor 1a Source HGNC Symbol Acc HGNC 3609
C07	SBH0423236	ENST00000376199.7	FOXP3	ENSG00000049768	forkhead box P3 Source HGNC Symbol Acc HGNC 6106
C08	SBH0349339	ENST00000346208.4	GATA3	ENSG00000107485	GATA binding protein 3 Source HGNC Symbol Acc HGNC 4172
C09	SBH0240434	ENST00000332539.5	PTGDR2	ENSG00000183134	prostaglandin D2 receptor 2 Source HGNC Symbol Acc HGNC 4502
C10	SBH0382852	ENST00000435193.1	ICOS	ENSG00000163600	inducible T cell costimulator Source HGNC Symbol Acc HGNC 5351
		ENST00000229		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH1220090	135.4	IFNG	111537	interferon gamma Source HGNC Symbol Acc HGNC 5438
C12	SBH0074692	ENST00000290 219.10	IFNGR2	ENSG00000 159128	interferon gamma receptor 2 Source HGNC Symbol Acc HGNC 5440
D01	SBH1220095	ENST00000423 557.1	IL10	ENSG00000 136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
D02	SBH1220098	ENST00000305 579.7	IL12A	ENSG00000 168811	interleukin 12A Source HGNC Symbol Acc HGNC 5969
D03	SBH1220099	ENST00000231 228.2	IL12B	ENSG00000 113302	interleukin 12B Source HGNC Symbol Acc HGNC 5970
D04	SBH0375568	ENST00000304 506.7	IL13	ENSG00000 169194	interleukin 13 Source HGNC Symbol Acc HGNC 5973
D05	SBH0405599	ENST00000371 666.8	IL13RA1	ENSG00000 131724	interleukin 13 receptor subunit alpha 1 Source HGNC Symbol Acc HGNC 5974
D06	SBH1220100	ENST00000243 213.2	IL13RA2	ENSG00000 123496	interleukin 13 receptor subunit alpha 2 Source HGNC Symbol Acc HGNC 5975
D07	SBH0451354	ENST00000340 057.1	IL17A	ENSG00000 112115	interleukin 17A Source HGNC Symbol Acc HGNC 5981
D08	SBH0499119	ENST00000288 167.8	IL17RB	ENSG00000 056736	interleukin 17 receptor B Source HGNC Symbol Acc HGNC 18015
D09	SBH1220103	ENST00000524 595.5	IL18	ENSG00000 150782	interleukin 18 Source HGNC Symbol Acc HGNC 5986
D10	SBH0602785	ENST00000482 701.5	IL1RL1	ENSG00000 115602	interleukin 1 receptor like 1 Source HGNC Symbol Acc HGNC 5998
D11	SBH1220106	ENST00000611 104.2	IL21	ENSG00000 138684	interleukin 21 Source HGNC Symbol Acc HGNC 6005
D12	SBH0573219	ENST00000329 715.2	IL25	ENSG00000 166090	interleukin 25 Source HGNC Symbol Acc HGNC 13765
E01	SBH0567688	ENST00000447 847.1	IL2RA	ENSG00000 134460	interleukin 2 receptor subunit alpha Source HGNC Symbol Acc HGNC 6008
E02	SBH0584080	ENST00000296 870.2	IL3	ENSG00000 164399	interleukin 3 Source HGNC Symbol Acc HGNC 6011
E03	SBH0489868	ENST00000377 035.1	IL31	ENSG00000 204671	interleukin 31 Source HGNC Symbol Acc HGNC 19372
E04	SBH0223610	ENST00000381 434.7	IL33	ENSG00000 137033	interleukin 33 Source HGNC Symbol Acc HGNC 16028
E05	SBH0081742	ENST00000331 035.9	IL3RA	ENSG00000 185291	interleukin 3 receptor subunit alpha Source HGNC Symbol Acc HGNC 6012
E06	SBH1220109	ENST00000350 025.2	IL4	ENSG00000 113520	interleukin 4 Source HGNC Symbol Acc HGNC 6014
E07	SBH0492526	ENST00000565 915.5	IL4R	ENSG00000 077238	interleukin 4 receptor Source HGNC Symbol Acc HGNC 6015
E08	SBH1220110	ENST00000231 454.6	IL5	ENSG00000 113525	interleukin 5 Source HGNC Symbol Acc HGNC 6016
E09	SBH0433117	ENST00000256 452.7	IL5RA	ENSG00000 091181	interleukin 5 receptor subunit alpha Source HGNC Symbol Acc HGNC 6017
E10	SBH1220114	ENST00000274 520.1	IL9	ENSG00000 145839	interleukin 9 Source HGNC Symbol Acc HGNC 6029
E11	SBH0452028	ENST00000288 135.5	KIT	ENSG00000 157404	KIT proto-oncogene receptor tyrosine kinase Source HGNC Symbol Acc HGNC 6342
E12	SBH0076738	ENST00000644 744.1	KITLG	ENSG00000 049130	KIT ligand Source HGNC Symbol Acc HGNC 6343
F01	SBH0021145	ENST00000556 141.1	LTB4R	ENSG00000 213903	leukotriene B4 receptor Source HGNC Symbol Acc HGNC 6713
F02	SBH0429226	ENST00000326 043.5	MAF	ENSG00000 178573	MAF bZIP transcription factor Source HGNC Symbol Acc HGNC 6776
F03	SBH0471278	ENST00000372 330.3	MMP9	ENSG00000 100985	matrix metalloproteinase 9 Source HGNC Symbol Acc HGNC 7176
F04	SBH0047410	ENST00000569 591.3	MRC1	ENSG00000 260314	mannose receptor C-type 1 Source HGNC Symbol Acc HGNC 7228
F05	SBH0147479	ENST00000278 888.8	MS4A2	ENSG00000 149534	membrane spanning 4-domains A2 Source HGNC Symbol Acc HGNC 7316
F06	SBH0300057	ENST00000343 705.3	PDCD1	ENSG00000 188389	programmed cell death 1 Source HGNC Symbol Acc HGNC 8760
F07	SBH0343859	ENST00000329 406.5	PMCH	ENSG00000 183395	pro-melanin concentrating hormone Source HGNC Symbol Acc HGNC 9109
F08	SBH0466638	ENST00000379 749.8	POSTN	ENSG00000 133110	perostin Source HGNC Symbol Acc HGNC 16953
F09	SBH0521265	ENST00000652 522.1	PPARG	ENSG00000 132170	peroxisome proliferator activated receptor gamma Source HGNC Symbol Acc HGNC 9236
F10	SBH0307346	ENST00000525 955.1	PRG2	ENSG00000 186652	proteoglycan 2, pro eosinophil major basic protein Source HGNC Symbol Acc HGNC 9362

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0636272	ENST00000295755.6	RETNLB	ENSG00000163515	resistin like beta Source HGNC Symbol Acc HGNC 20388
F12	SBH0272679	ENST00000304625.3	RNASE2	ENSG00000169385	ribonuclease A family member 2 Source HGNC Symbol Acc HGNC 10045
G01	SBH0225715	ENST00000304639.3	RNASE3	ENSG00000169397	ribonuclease A family member 3 Source HGNC Symbol Acc HGNC 10046
G02	SBH1220375	ENST00000356728.10	RORC	ENSG00000143365	RAR related orphan receptor C Source HGNC Symbol Acc HGNC 10260
G03	SBH0209955	ENST00000338745.11	SATB1	ENSG00000182568	SATB homeobox 1 Source HGNC Symbol Acc HGNC 10541
G04	SBH0446391	ENST00000430817.5	SIGLEC8	ENSG00000105366	sialic acid binding Ig like lectin 8 Source HGNC Symbol Acc HGNC 10877
G05	SBH0335854	ENST00000345506.8	STAT5A	ENSG00000126561	signal transducer and activator of transcription 5A Source HGNC Symbol Acc HGNC 11366
G06	SBH1220424	ENST00000300134.8	STAT6	ENSG00000166888	signal transducer and activator of transcription 6 Source HGNC Symbol Acc HGNC 11368
G07	SBH1220435	ENST00000177694.2	TBX21	ENSG00000073861	T-box 21 Source HGNC Symbol Acc HGNC 11599
G08	SBH1220443	ENST00000598758.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G09	SBH0433585	ENST00000453580.1	TNFRSF4	ENSG00000186827	TNF receptor superfamily member 4 Source HGNC Symbol Acc HGNC 11918
G10	SBH1220481	ENST00000367718.5	TNFSF4	ENSG00000117586	TNF superfamily member 4 Source HGNC Symbol Acc HGNC 11934
G11	SBH0588789	ENST00000338844.8	TPSAB1	ENSG00000172236	tryptase alpha/beta 1 Source HGNC Symbol Acc HGNC 12019
G12	SBH0470520	ENST00000344895.4	TSLP	ENSG00000145777	thymic stromal lymphopoietin Source HGNC Symbol Acc HGNC 30743
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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