

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

## Human Type I Interferon Response

Cat. no. 249950 SBHS-016ZA

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	ADAR	BAG3	BST2	CASP1	CAV1	CCL2	CCL5	CD70	CD80	CD86	CDKN1B	CIITA
B	CRP	CXCL10	DDX58	EIF2AK2	G8P1	HLA-A	HLA-B	HLA-E	HLA-G	IFI16	IFI27	IFI30
C	IFI6	IFIH1	IFIT1	IFIT2	IFIT3	IFITM1	IFITM2	IFITM3	IFNA1	IFNA2	IFNA4	IFNAR1
D	IFNAR2	IFNB1	IFNE	IFNW1	IL10	IL15	IL6	IRF1	IRF2	IRF3	IRF5	IRF7
E	IRF9	ISG15	ISG20	JAK1	JAK2	MAL	MET	MNDA	MX1	MX2	MYD88	NMI
F	NOS2	OAS1	OAS2	PML	PRKCZ	PSME2	SH2D1A	SHB	SOCS1	STAT1	STAT2	STAT3
G	TAP1	TICAM1	TIMP1	TLR3	TLR7	TLR8	TLR9	TMEM173	TNFSF10	TRAF3	TYK2	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	SBH0422508	ENST00000647597.1	ADAR	ENSG00000160710	adenosine deaminase, RNA specific Source HGNC Symbol Acc HGNC 225
A02	SBH0474041	ENST00000369085.7	BAG3	ENSG00000151929	BCL2 associated athanogene 3 Source HGNC Symbol Acc HGNC 939
A03	SBH1219817	ENST00000252593.7	BST2	ENSG00000130303	bone marrow stromal cell antigen 2 Source HGNC Symbol Acc HGNC 1119
A04	SBH0054226	ENST00000526568.5	CASP1	ENSG00000137752	caspase 1 Source HGNC Symbol Acc HGNC 1499
A05	SBH0105254	ENST00000451122.5	CAV1	ENSG00000105974	caveolin 1 Source HGNC Symbol Acc HGNC 1527
A06	SBH0228134	ENST00000225831.4	CCL2	ENSG00000108691	C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618
A07	SBH1219840	ENST00000603197.6	CCL5	ENSG00000271503	C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632
A08	SBH1219863	ENST00000245903.4	CD70	ENSG00000125726	CD70 molecule Source NCBI gene Acc 970
A09	SBH1219864	ENST00000264246.8	CD80	ENSG00000121594	CD80 molecule Source HGNC Symbol Acc HGNC 1700
A10	SBH0280451	ENST00000393627.6	CD86	ENSG00000114013	CD86 molecule Source HGNC Symbol Acc HGNC 1705
A11	SBH1219879	ENST00000442489.1	CDKN1B	ENSG00000111276	cyclin dependent kinase inhibitor 1B Source HGNC Symbol Acc HGNC 1785
A12	SBH1219889	ENST00000618207.4	CIITA	ENSG00000179583	class II major histocompatibility complex transactivator Source HGNC Symbol Acc HGNC 7067
B01	SBH0187022	ENST00000255030.9	CRP	ENSG00000132693	C-reactive protein Source HGNC Symbol Acc HGNC 2367
B02	SBH1219927	ENST00000306602.3	CXCL10	ENSG00000169245	C-X-C motif chemokine ligand 10 Source HGNC Symbol Acc HGNC 10637
B03	SBH1219944	ENST00000379883.3	DDX58	ENSG00000107201	DExD/H-box helicase 58 Source HGNC Symbol Acc HGNC 19102
B04	SBH1219971	ENST00000233057.9	EIF2AK2	ENSG00000055332	eukaryotic translation initiation factor 2 alpha kinase 2 Source HGNC Symbol Acc HGNC 9437
B05	SBH0258427	ENST00000469194.1	GBP1	ENSG00000117228	guanylate binding protein 1 Source HGNC Symbol Acc HGNC 4182
B06	SBH1220063	ENST00000376806.9	HLA-A	ENSG00000206503	major histocompatibility complex, class I, A Source HGNC Symbol Acc HGNC 4931
B07	SBH0179046	ENST00000474381.1	HLA-B	ENSG00000234745	major histocompatibility complex, class I, B Source HGNC Symbol Acc HGNC 4932
B08	SBH1220064	ENST00000376630.5	HLA-E	ENSG00000204592	major histocompatibility complex, class I, E Source HGNC Symbol Acc HGNC 4962
B09	SBH1220065	ENST00000428701.5	HLA-G	ENSG00000204632	major histocompatibility complex, class I, G Source HGNC Symbol Acc HGNC 4964
B10	SBH0435227	ENST00000368131.8	IFI16	ENSG00000163565	interferon gamma inducible protein 16 Source HGNC Symbol Acc HGNC 5395
B11	SBH0560386	ENST00000621160.4	IFI27	ENSG00000165949	interferon alpha inducible protein 27 Source HGNC Symbol Acc HGNC 5397
B12	SBH1220080	ENST00000407280.4	IFI30	ENSG00000216490	IFI30, lysosomal thiol reductase Source HGNC Symbol Acc HGNC 5398
C01	SBH0664680	ENST00000362020.4	IFI6	ENSG00000126709	interferon alpha inducible protein 6 Source HGNC Symbol Acc HGNC 4054
C02	SBH1220081	ENST00000263642.2	IFIH1	ENSG00000115267	interferon induced with helicase C domain 1 Source HGNC Symbol Acc HGNC 18873
C03	SBH1220082	ENST00000371804.4	IFIT1	ENSG00000185745	interferon induced protein with tetratricopeptide repeats 1 Source HGNC Symbol Acc HGNC 5407
C04	SBH1220083	ENST00000611722.1	IFIT2	ENSG00000119922	interferon induced protein with tetratricopeptide repeats 2 Source HGNC Symbol Acc HGNC 5409
C05	SBH1220084	ENST00000371818.9	IFIT3	ENSG00000119917	interferon induced protein with tetratricopeptide repeats 3 Source HGNC Symbol Acc HGNC 5411
C06	SBH1220085	ENST00000408968.4	IFITM1	ENSG00000185885	interferon induced transmembrane protein 1 Source HGNC Symbol Acc HGNC 5412
C07	SBH0343168	ENST00000399817.8	IFITM2	ENSG00000185201	interferon induced transmembrane protein 2 Source HGNC Symbol Acc HGNC 5413
C08	SBH1220086	ENST00000602735.2	IFITM3	ENSG00000142089	interferon induced transmembrane protein 3 Source HGNC Symbol Acc HGNC 5414
C09	SBH0388912	ENST00000276927.2	IFNA1	ENSG00000197919	interferon alpha 1 Source HGNC Symbol Acc HGNC 5417
C10	SBH0359836	ENST00000380206.3	IFNA2	ENSG00000188379	interferon alpha 2 Source HGNC Symbol Acc HGNC 5423
		ENST00000421		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0303037	715.2	IFNA4	236637	interferon alpha 4 Source HGNC Symbol Acc HGNC 5425
C12	SBH1220087	ENST00000442071.2	IFNAR1	ENSG00000142166	interferon alpha and beta receptor subunit 1 Source HGNC Symbol Acc HGNC 5432
D01	SBH1220088	ENST00000404220.7	IFNAR2	ENSG00000159110	interferon alpha and beta receptor subunit 2 Source HGNC Symbol Acc HGNC 5433
D02	SBH1220089	ENST00000380232.4	IFNB1	ENSG00000171855	interferon beta 1 Source HGNC Symbol Acc HGNC 5434
D03	SBH0587771	ENST00000448696.4	IFNE	ENSG00000184995	interferon epsilon Source HGNC Symbol Acc HGNC 18163
D04	SBH0296679	ENST00000380229.3	IFNW1	ENSG00000177047	interferon omega 1 Source HGNC Symbol Acc HGNC 5448
D05	SBH1220095	ENST00000423557.1	IL10	ENSG00000136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
D06	SBH1220101	ENST00000296545.11	IL15	ENSG00000164136	interleukin 15 Source HGNC Symbol Acc HGNC 5977
D07	SBH1220111	ENST00000401630.7	IL6	ENSG00000136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
D08	SBH1220122	ENST00000245414.9	IRF1	ENSG00000125347	interferon regulatory factor 1 Source HGNC Symbol Acc HGNC 6116
D09	SBH1220123	ENST00000393593.8	IRF2	ENSG00000168310	interferon regulatory factor 2 Source HGNC Symbol Acc HGNC 6117
D10	SBH1220124	ENST00000601809.5	IRF3	ENSG00000126456	interferon regulatory factor 3 Source HGNC Symbol Acc HGNC 6118
D11	SBH1220125	ENST00000357234.10	IRF5	ENSG00000128604	interferon regulatory factor 5 Source HGNC Symbol Acc HGNC 6120
D12	SBH0251148	ENST00000397574.7	IRF7	ENSG00000185507	interferon regulatory factor 7 Source HGNC Symbol Acc HGNC 6122
E01	SBH1220126	ENST00000396864.7	IRF9	ENSG00000213928	interferon regulatory factor 9 Source HGNC Symbol Acc HGNC 6131
E02	SBH0407556	ENST00000649529.1	ISG15	ENSG00000187608	ISG15 ubiquitin-like modifier Source HGNC Symbol Acc HGNC 4053
E03	SBH1220128	ENST00000559876.1	ISG20	ENSG00000172183	interferon stimulated exonuclease gene 20 Source HGNC Symbol Acc HGNC 6130
E04	SBH1220142	ENST00000342505.5	JAK1	ENSG00000162434	Janus kinase 1 Source HGNC Symbol Acc HGNC 6190
E05	SBH0334185	ENST00000381652.3	JAK2	ENSG00000096968	Janus kinase 2 Source HGNC Symbol Acc HGNC 6192
E06	SBH1220186	ENST00000354078.7	MAL	ENSG00000172005	mal, T cell differentiation protein Source HGNC Symbol Acc HGNC 6817
E07	SBH1220210	ENST00000318493.11	MET	ENSG00000105976	MET proto-oncogene, receptor tyrosine kinase Source HGNC Symbol Acc HGNC 7029
E08	SBH1220227	ENST00000368141.5	MNDA	ENSG00000163563	myeloid cell nuclear differentiation antigen Source HGNC Symbol Acc HGNC 7183
E09	SBH1220232	ENST00000288383.10	MX1	ENSG00000157601	MX dynamin like GTPase 1 Source HGNC Symbol Acc HGNC 7532
E10	SBH1220233	ENST00000330714.8	MX2	ENSG00000183486	MX dynamin like GTPase 2 Source HGNC Symbol Acc HGNC 7533
E11	SBH0303234	ENST00000648963.1	MYD88	ENSG00000172936	MYD88, innate immune signal transduction adaptor Source HGNC Symbol Acc HGNC 7562
E12	SBH0207091	ENST00000243346.9	NMI	ENSG00000123609	N-myc and STAT interactor Source HGNC Symbol Acc HGNC 7854
F01	SBH0408796	ENST00000313735.10	NOS2	ENSG00000007171	nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873
F02	SBH1220283	ENST00000452357.6	OAS1	ENSG00000089127	2'-5'-oligoadenylate synthetase 1 Source HGNC Symbol Acc HGNC 8086
F03	SBH0544779	ENST00000392583.6	OAS2	ENSG00000111335	2'-5'-oligoadenylate synthetase 2 Source HGNC Symbol Acc HGNC 8087
F04	SBH0001765	ENST00000268058.7	PML	ENSG00000140464	promyelocytic leukemia Source HGNC Symbol Acc HGNC 9113
F05	SBH1220333	ENST00000470596.5	PRKCZ	ENSG00000067606	protein kinase C zeta Source HGNC Symbol Acc HGNC 9412
F06	SBH1220340	ENST00000216802.10	PSME2	ENSG00000100911	proteasome activator subunit 2 Source HGNC Symbol Acc HGNC 9569
F07	SBH0237470	ENST00000371139.8	SH2D1A	ENSG00000183918	SH2 domain containing 1A Source HGNC Symbol Acc HGNC 10820
F08	SBH1220397	ENST00000377707.4	SHB	ENSG00000107338	SH2 domain containing adaptor protein B Source HGNC Symbol Acc HGNC 10838
F09	SBH1220412	ENST00000644787.1	SOCS1	ENSG00000185338	suppressor of cytokine signaling 1 Source HGNC Symbol Acc HGNC 19383
F10	SBH0333289	ENST00000361099.7	STAT1	ENSG00000115415	signal transducer and activator of transcription 1 Source HGNC Symbol Acc HGNC 11362

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220422	ENST00000314128.9	STAT2	ENSG00000170581	signal transducer and activator of transcription 2 Source HGNC Symbol Acc HGNC 11363
F12	SBH0341614	ENST00000404395.3	STAT3	ENSG00000168610	signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364
G01	SBH1220432	ENST00000354258.4	TAP1	ENSG00000168394	transporter 1, ATP binding cassette subfamily B member Source HGNC Symbol Acc HGNC 43
G02	SBH1220451	ENST00000248244.5	TICAM1	ENSG00000127666	toll like receptor adaptor molecule 1 Source NCBI gene Acc 148022
G03	SBH1220454	ENST00000218388.9	TIMP1	ENSG00000102265	TIMP metalloproteinase inhibitor 1 Source HGNC Symbol Acc HGNC 11820
G04	SBH1220462	ENST00000513189.1	TLR3	ENSG00000164342	toll like receptor 3 Source HGNC Symbol Acc HGNC 11849
G05	SBH1220465	ENST00000380659.4	TLR7	ENSG00000196664	toll like receptor 7 Source HGNC Symbol Acc HGNC 15631
G06	SBH0265788	ENST00000218032.6	TLR8	ENSG00000101916	toll like receptor 8 Source HGNC Symbol Acc HGNC 15632
G07	SBH1220466	ENST00000360658.2	TLR9	ENSG00000239732	toll like receptor 9 Source HGNC Symbol Acc HGNC 15633
G08	SBH1220468	ENST00000330794.9	TMEM173	ENSG00000184584	transmembrane protein 173 Source HGNC Symbol Acc HGNC 27962
G09	SBH1220477	ENST00000241261.7	TNFSF10	ENSG00000121858	TNF superfamily member 10 Source HGNC Symbol Acc HGNC 11925
G10	SBH0271159	ENST00000560371.5	TRAF3	ENSG00000131323	TNF receptor associated factor 3 Source HGNC Symbol Acc HGNC 12033
G11	SBH0311688	ENST00000525621.5	TYK2	ENSG00000105397	tyrosine kinase 2 Source HGNC Symbol Acc HGNC 12440
G12	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at [www.qiagen.com](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.