

QuantiNova® LNA® PCR Focus Panels (Rotor-Gene® Format)

Human Transplant Rejection

Cat. no. 249950 SBHS-166ZR

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 (Rotor-Gene): QuantiNova LNA PCR Focus Panel

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc® (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance. Refer to the QuantiNova LNA PCR System Handbook at www.qiagen.com for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	ADAM17	BMP7	C3	CASP1	CASP3	CASP8	CCL11	CCL2	CCL3	CCL4	CCL5	CCR2
B	CCR3	CCR5	CCR7	CD14	CD28	CD40	CD40LG	CD44	CD80	CD86	CD8A	COL1A2
C	CSF2	CCN2	CTLA4	CX3CR1	CXCL10	CXCL11	CXCL9	CXCR3	CXCR4	FAS	FASLG	FCGR1A
D	GZMA	GZMB	ICAM1	IFNG	IL10	IL12A	IL13	IL16	IL18	IL2	IL2RA	IL3
E	IL32	IL4	IL5	IL6	CXCL8	ITGA2	ITGAE	ITGAM	MMP1	MMP2	MMP7	MMP9
F	MS4A1	NFKB1	NOS2	PECAM1	PRF1	PSMB9	STAT1	STAT4	STAT6	TAP1	TGFB1	TGFB2
G	TGFB3	THBS1	THBS2	TIMP1	TLR3	TLR4	TLR9	TNF	TNFAIP3	TNFSF10	VCAM1	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	SBH1219723	ENST00000310823.8	ADAM17	ENSG00000151694	ADAM metallopeptidase domain 17 Source HGNC Symbol Acc HGNC 195
A02	SBH1219806	ENST00000450594.6	BMP7	ENSG00000101144	bone morphogenetic protein 7 Source HGNC Symbol Acc HGNC 1074
A03	SBH0244130	ENST00000245907.10	C3	ENSG00000125730	complement C3 Source HGNC Symbol Acc HGNC 1318
A04	SBH0054226	ENST00000526568.5	CASP1	ENSG00000137752	caspase 1 Source HGNC Symbol Acc HGNC 1499
A05	SBH1219824	ENST00000308394.9	CASP3	ENSG00000164305	caspase 3 Source HGNC Symbol Acc HGNC 1504
A06	SBH0075404	ENST00000358485.8	CASP8	ENSG00000064012	caspase 8 Source HGNC Symbol Acc HGNC 1509
A07	SBH0204041	ENST00000305869.3	CCL11	ENSG00000172156	C-C motif chemokine ligand 11 Source HGNC Symbol Acc HGNC 10610
A08	SBH0228134	ENST00000225831.4	CCL2	ENSG00000108691	C-C motif chemokine ligand 2 Source HGNC Symbol Acc HGNC 10618
A09	SBH1219838	ENST00000613922.2	CCL3	ENSG00000277632	C-C motif chemokine ligand 3 Source HGNC Symbol Acc HGNC 10627
A10	SBH1219839	ENST00000615863.2	CCL4	ENSG00000275302	C-C motif chemokine ligand 4 Source HGNC Symbol Acc HGNC 10630
A11	SBH1219840	ENST00000603197.6	CCL5	ENSG00000271503	C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632
A12	SBH0387563	ENST00000445132.2	CCR2	ENSG00000121807	C-C motif chemokine receptor 2 Source HGNC Symbol Acc HGNC 1603
B01	SBH1219852	ENST00000545097.1	CCR3	ENSG00000183625	C-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 1604
B02	SBH1219854	ENST00000292303.4	CCR5	ENSG00000160791	C-C motif chemokine receptor 5 (gene/pseudogene) Source HGNC Symbol Acc HGNC 1606
B03	SBH0112550	ENST00000246657.2	CCR7	ENSG00000126353	C-C motif chemokine receptor 7 Source HGNC Symbol Acc HGNC 1608
B04	SBH1219857	ENST00000512545.1	CD14	ENSG00000170458	CD14 molecule Source HGNC Symbol Acc HGNC 1628
B05	SBH0430835	ENST00000458610.6	CD28	ENSG00000178562	CD28 molecule Source HGNC Symbol Acc HGNC 1653
B06	SBH1219861	ENST00000372285.7	CD40	ENSG00000101017	CD40 molecule Source HGNC Symbol Acc HGNC 11919
B07	SBH1219862	ENST00000370629.6	CD40LG	ENSG00000102245	CD40 ligand Source HGNC Symbol Acc HGNC 11935
B08	SBH0074994	ENST00000428726.7	CD44	ENSG00000026508	CD44 molecule (Indian blood group) Source HGNC Symbol Acc HGNC 1681
B09	SBH1219864	ENST00000264246.8	CD80	ENSG00000121594	CD80 molecule Source HGNC Symbol Acc HGNC 1700
B10	SBH0280451	ENST00000393627.6	CD86	ENSG00000114013	CD86 molecule Source HGNC Symbol Acc HGNC 1705
B11	SBH0013530	ENST00000283635.7	CD8A	ENSG00000153563	CD8a molecule Source HGNC Symbol Acc HGNC 1706
B12	SBH0096733	ENST00000297268.10	COL1A2	ENSG00000164692	collagen type I alpha 2 chain Source HGNC Symbol Acc HGNC 2198
C01	SBH1219914	ENST00000296871.4	CSF2	ENSG00000164400	colony stimulating factor 2 Source HGNC Symbol Acc HGNC 2434
C02	SBH1219917	ENST00000367976.4	CCN2	ENSG00000118523	cellular communication network factor 2 Source HGNC Symbol Acc HGNC 2500
C03	SBH0671849	ENST00000472206.1	CTLA4	ENSG00000163599	cytotoxic T-lymphocyte associated protein 4 Source HGNC Symbol Acc HGNC 2505
C04	SBH0005890	ENST00000399220.2	CX3CR1	ENSG00000168329	C-X3-C motif chemokine receptor 1 Source HGNC Symbol Acc HGNC 2558
C05	SBH1219927	ENST00000306602.3	CXCL10	ENSG00000169245	C-X-C motif chemokine ligand 10 Source HGNC Symbol Acc HGNC 10637
C06	SBH0419056	ENST00000306621.7	CXCL11	ENSG00000169248	C-X-C motif chemokine ligand 11 Source HGNC Symbol Acc HGNC 10638
C07	SBH0383348	ENST00000264888.5	CXCL9	ENSG00000138755	C-X-C motif chemokine ligand 9 Source HGNC Symbol Acc HGNC 7098
C08	SBH1219934	ENST00000373693.4	CXCR3	ENSG00000186810	C-X-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 4540
C09	SBH0591410	ENST00000241393.3	CXCR4	ENSG00000121966	C-X-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 2561
C10	SBH1219994	ENST00000652046.1	FAS	ENSG00000026103	Fas cell surface death receptor Source HGNC Symbol Acc HGNC 11920
		ENST00000367		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH1219995	721.3	FASLG	117560	Fas ligand Source HGNC Symbol Acc HGNC 11936
C12	SBH0043666	ENST00000444948.5	FCGR1A	ENSG00000150337	Fc fragment of IgG receptor Ia Source HGNC Symbol Acc HGNC 3613
D01	SBH0311276	ENST00000274306.7	GZMA	ENSG00000145649	granzyme A Source HGNC Symbol Acc HGNC 4708
D02	SBH0351472	ENST00000382540.5	GZMB	ENSG00000100453	granzyme B Source HGNC Symbol Acc HGNC 4709
D03	SBH1220076	ENST00000264832.8	ICAM1	ENSG00000090339	intercellular adhesion molecule 1 Source HGNC Symbol Acc HGNC 5344
D04	SBH1220090	ENST00000229135.4	IFNG	ENSG00000111537	interferon gamma Source HGNC Symbol Acc HGNC 5438
D05	SBH1220095	ENST00000423557.1	IL10	ENSG00000136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
D06	SBH1220098	ENST00000305579.7	IL12A	ENSG00000168811	interleukin 12A Source HGNC Symbol Acc HGNC 5969
D07	SBH0375568	ENST00000304506.7	IL13	ENSG00000169194	interleukin 13 Source HGNC Symbol Acc HGNC 5973
D08	SBH1220102	ENST00000394660.6	IL16	ENSG00000172349	interleukin 16 Source HGNC Symbol Acc HGNC 5980
D09	SBH0079231	ENST00000263341.6	IL1B	ENSG00000125538	interleukin 1 beta Source HGNC Symbol Acc HGNC 5992
D10	SBH0225582	ENST00000226730.4	IL2	ENSG00000109471	interleukin 2 Source HGNC Symbol Acc HGNC 6001
D11	SBH0567688	ENST00000447847.1	IL2RA	ENSG00000134460	interleukin 2 receptor subunit alpha Source HGNC Symbol Acc HGNC 6008
D12	SBH0584080	ENST00000296870.2	IL3	ENSG00000164399	interleukin 3 Source HGNC Symbol Acc HGNC 6011
E01	SBH0196158	ENST00000548246.1	IL32	ENSG00000008517	interleukin 32 Source HGNC Symbol Acc HGNC 16830
E02	SBH1220109	ENST00000350025.2	IL4	ENSG00000113520	interleukin 4 Source HGNC Symbol Acc HGNC 6014
E03	SBH1220110	ENST00000231454.6	IL5	ENSG00000113525	interleukin 5 Source HGNC Symbol Acc HGNC 6016
E04	SBH1220111	ENST00000401630.7	IL6	ENSG00000136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
E05	SBH1219932	ENST00000401931.1	CXCL8	ENSG00000169429	C-X-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 6025
E06	SBH1220130	ENST00000296585.10	ITGA2	ENSG00000164171	integrin subunit alpha 2 Source HGNC Symbol Acc HGNC 6137
E07	SBH0380017	ENST00000263087.9	ITGAE	ENSG00000083457	integrin subunit alpha E Source HGNC Symbol Acc HGNC 6147
E08	SBH0245852	ENST00000287497.13	ITGAM	ENSG00000169896	integrin subunit alpha M Source HGNC Symbol Acc HGNC 6149
E09	SBH1220215	ENST00000315274.7	MMP1	ENSG00000196611	matrix metalloproteinase 1 Source HGNC Symbol Acc HGNC 7155
E10	SBH1220222	ENST00000570308.5	MMP2	ENSG00000087245	matrix metalloproteinase 2 Source HGNC Symbol Acc HGNC 7166
E11	SBH1220224	ENST00000260227.5	MMP7	ENSG00000137673	matrix metalloproteinase 7 Source HGNC Symbol Acc HGNC 7174
E12	SBH0471278	ENST00000372330.3	MMP9	ENSG00000100985	matrix metalloproteinase 9 Source HGNC Symbol Acc HGNC 7176
F01	SBH0171801	ENST00000532418.1	MS4A1	ENSG00000156738	membrane spanning 4-domains A1 Source HGNC Symbol Acc HGNC 7315
F02	SBH1220264	ENST00000651197.1	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
F03	SBH0408796	ENST00000313735.10	NOS2	ENSG00000007171	nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873
F04	SBH1220299	ENST00000563924.6	PECAM1	ENSG00000261371	platelet and endothelial cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 8823
F05	SBH0602829	ENST00000441259.2	PRF1	ENSG00000180644	perforin 1 Source HGNC Symbol Acc HGNC 9360
F06	SBH0047829	ENST00000467593.1	PSMB9	ENSG00000240065	proteasome subunit beta 9 Source HGNC Symbol Acc HGNC 9546
F07	SBH0333289	ENST00000361099.7	STAT1	ENSG00000115415	signal transducer and activator of transcription 1 Source HGNC Symbol Acc HGNC 11362
F08	SBH1220423	ENST00000392320.7	STAT4	ENSG00000138378	signal transducer and activator of transcription 4 Source HGNC Symbol Acc HGNC 11365
F09	SBH1220424	ENST00000300134.8	STAT6	ENSG00000166888	signal transducer and activator of transcription 6 Source HGNC Symbol Acc HGNC 11368
F10	SBH1220432	ENST00000354258.4	TAP1	ENSG00000168394	transporter 1, ATP binding cassette subfamily B member Source HGNC Symbol Acc HGNC 43

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220443	ENST00000598758.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
F12	SBH1220444	ENST00000366930.9	TGFB2	ENSG00000092969	transforming growth factor beta 2 Source HGNC Symbol Acc HGNC 11768
G01	SBH0179529	ENST00000238682.7	TGFB3	ENSG00000119699	transforming growth factor beta 3 Source HGNC Symbol Acc HGNC 11769
G02	SBH1220450	ENST00000260356.5	THBS1	ENSG00000137801	thrombospondin 1 Source HGNC Symbol Acc HGNC 11785
G03	SBH0457929	ENST00000366787.7	THBS2	ENSG00000186340	thrombospondin 2 Source HGNC Symbol Acc HGNC 11786
G04	SBH1220454	ENST00000218388.9	TIMP1	ENSG00000102265	TIMP metalloproteinase inhibitor 1 Source HGNC Symbol Acc HGNC 11820
G05	SBH1220462	ENST00000513189.1	TLR3	ENSG00000164342	toll like receptor 3 Source HGNC Symbol Acc HGNC 11849
G06	SBH0092782	ENST00000355622.8	TLR4	ENSG00000136869	toll like receptor 4 Source HGNC Symbol Acc HGNC 11850
G07	SBH1220466	ENST00000360658.2	TLR9	ENSG00000239732	toll like receptor 9 Source HGNC Symbol Acc HGNC 15633
G08	SBH1220471	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G09	SBH0348756	ENST00000614035.4	TNFAIP3	ENSG00000118503	TNF alpha induced protein 3 Source HGNC Symbol Acc HGNC 11896
G10	SBH1220477	ENST00000241261.7	TNFSF10	ENSG00000121858	TNF superfamily member 10 Source HGNC Symbol Acc HGNC 11925
G11	SBH1220515	ENST00000294728.7	VCAM1	ENSG00000162692	vascular cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 12663
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 μ l reactions: 20 μ l 8x gDNA Removal Mix, 10 μ l Reverse Transcription Enzyme, 40 μ l Reverse Transcription Mix (containing RT primers), 20 μ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 μ l QuantiNova SYBR Green RT Mix, 20 μ l Internal Control RNA, 500 μ l Yellow Template Dilution Buffer, 250 μ l ROX Reference Dye, 1.9 μ l RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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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