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

Human T Helper Cell Differentiation

Cat. no. 249950 SBHS-503ZR

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	ASB2	CACNA1F	CCL5	CCL7	CCR3	CCR4	CCR5	CCR6	CEBPB	CHD7	EOMES	FASLG
B	FOSL1	FOXP3	GATA3	GATA4	GFI1	PTGDR2	HAVCR2	HOPX	HOXA10	HOXA3	ICOS	ID2
C	IFNG	IGSF6	IKZF2	IL12B	IL12RB2	IL13	IL13RA1	IL17A	IL17RE	IL18	IL18R1	IL18RAP
D	IL1R1	IL1R2	IL1RL1	IL2	IL21	IL2RA	IL4	IL4R	IL5	IL9	IRF1	IRF4
E	IRF8	JAK1	KIF2C	LRRC32	MAF	MYB	NFATC1	NFATC2	NR4A1	NR4A3	PERP	PKD2
F	POU2F2	PPARG	REL	RELB	RORA	RORC	RUNX1	RUNX3	SOCS1	SOCS5	STAT1	STAT4
G	STAT6	TBX21	TGIF1	TLR4	TLR6	TNF	TNFRSF9	TNFSF11	TOX	TP53INP1	UTS2	ZBTB7B
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	SBH0545829	ENST00000555287.1	ASB2	ENSG00000100628	ankyrin repeat and SOCS box containing 2 Source HGNC Symbol Acc HGNC 16012
A02	SBH0579782	ENST00000376251.5	CACNA1F	ENSG00000102001	calcium voltage-gated channel subunit alpha1 F Source HGNC Symbol Acc HGNC 1393
A03	SBH1219840	ENST00000603197.6	CCL5	ENSG00000271503	C-C motif chemokine ligand 5 Source HGNC Symbol Acc HGNC 10632
A04	SBH0098305	ENST00000378569.2	CCL7	ENSG00000108688	C-C motif chemokine ligand 7 Source HGNC Symbol Acc HGNC 10634
A05	SBH1219852	ENST00000545097.1	CCR3	ENSG00000183625	C-C motif chemokine receptor 3 Source HGNC Symbol Acc HGNC 1604
A06	SBH1219853	ENST00000330953.5	CCR4	ENSG00000183813	C-C motif chemokine receptor 4 Source HGNC Symbol Acc HGNC 1605
A07	SBH1219854	ENST00000292303.4	CCR5	ENSG00000160791	C-C motif chemokine receptor 5 (gene/pseudogene) Source HGNC Symbol Acc HGNC 1606
A08	SBH1219855	ENST00000646493.1	CCR6	ENSG00000112486	C-C motif chemokine receptor 6 Source HGNC Symbol Acc HGNC 1607
A09	SBH0569983	ENST00000303004.4	CEBPB	ENSG00000172216	CCAAT enhancer binding protein beta Source HGNC Symbol Acc HGNC 1834
A10	SBH0223484	ENST00000528280.1	CHD7	ENSG00000171316	chromodomain helicase DNA binding protein 7 Source HGNC Symbol Acc HGNC 20626
A11	SBH0403457	ENST00000449599.3	EOMES	ENSG00000163508	eomesodermin Source HGNC Symbol Acc HGNC 3372
A12	SBH1219995	ENST00000367721.3	FASLG	ENSG00000117560	Fas ligand Source HGNC Symbol Acc HGNC 11936
B01	SBH1220005	ENST00000532401.1	FOSL1	ENSG00000175592	FOS like 1, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 13718
B02	SBH0423236	ENST00000376199.7	FOXP3	ENSG00000049768	forkhead box P3 Source HGNC Symbol Acc HGNC 6106
B03	SBH0349339	ENST00000346208.4	GATA3	ENSG00000107485	GATA binding protein 3 Source HGNC Symbol Acc HGNC 4172
B04	SBH0510780	ENST00000526716.5	GATA4	ENSG00000136574	GATA binding protein 4 Source HGNC Symbol Acc HGNC 4173
B05	SBH0291118	ENST00000294702.6	GFI1	ENSG00000162676	growth factor independent 1 transcriptional repressor Source HGNC Symbol Acc HGNC 4237
B06	SBH0240434	ENST00000332539.5	PTGDR2	ENSG00000183134	prostaglandin D2 receptor 2 Source HGNC Symbol Acc HGNC 4502
B07	SBH0544261	ENST00000522902.1	HAVCR2	ENSG00000135077	hepatitis A virus cellular receptor 2 Source HGNC Symbol Acc HGNC 18437
B08	SBH0511631	ENST00000508121.2	HOPX	ENSG00000171476	HOP homeobox Source HGNC Symbol Acc HGNC 24961
B09	SBH0356807	ENST00000613671.1	HOXA10	ENSG00000253293	homeobox A10 Source HGNC Symbol Acc HGNC 5100
B10	SBH0057391	ENST00000612286.4	HOXA3	ENSG00000105997	homeobox A3 Source HGNC Symbol Acc HGNC 5104
B11	SBH0382852	ENST00000435193.1	ICOS	ENSG00000163600	inducible T cell costimulator Source HGNC Symbol Acc HGNC 5351
B12	SBH0320623	ENST00000234091.8	ID2	ENSG00000115738	inhibitor of DNA binding 2 Source HGNC Symbol Acc HGNC 5361
C01	SBH1220090	ENST00000229135.4	IFNG	ENSG00000111537	interferon gamma Source HGNC Symbol Acc HGNC 5438
C02	SBH0136988	ENST00000569602.1	IGSF6	ENSG00000140749	immunoglobulin superfamily member 6 Source HGNC Symbol Acc HGNC 5953
C03	SBH0237724	ENST00000452786.2	IKZF2	ENSG00000030419	IKAROS family zinc finger 2 Source HGNC Symbol Acc HGNC 13177
C04	SBH1220099	ENST00000231228.2	IL12B	ENSG00000113302	interleukin 12B Source HGNC Symbol Acc HGNC 5970
C05	SBH0090342	ENST00000371000.5	IL12RB2	ENSG00000081985	interleukin 12 receptor subunit beta 2 Source HGNC Symbol Acc HGNC 5972
C06	SBH0375568	ENST00000304506.7	IL13	ENSG00000169194	interleukin 13 Source HGNC Symbol Acc HGNC 5973
C07	SBH0405599	ENST00000371666.8	IL13RA1	ENSG00000131724	interleukin 13 receptor subunit alpha 1 Source HGNC Symbol Acc HGNC 5974
C08	SBH0451354	ENST00000340057.1	IL17A	ENSG00000112115	interleukin 17A Source HGNC Symbol Acc HGNC 5981
C09	SBH0014961	ENST00000444427.5	IL17RE	ENSG00000163701	interleukin 17 receptor E Source HGNC Symbol Acc HGNC 18439
C10	SBH1220103	ENST00000524595.5	IL18	ENSG00000150782	interleukin 18 Source HGNC Symbol Acc HGNC 5986
		ENST00000334		ENSG00000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0245173	376.4	IL18R1	115604	interleukin 18 receptor 1 Source HGNC Symbol Acc HGNC 5988
C12	SBH0106121	ENST00000409369.1	IL18RAP	ENSG00000115607	interleukin 18 receptor accessory protein Source HGNC Symbol Acc HGNC 5989
D01	SBH1220104	ENST00000424272.5	IL1R1	ENSG00000115594	interleukin 1 receptor type 1 Source HGNC Symbol Acc HGNC 5993
D02	SBH0202838	ENST00000332549.8	IL1R2	ENSG00000115590	interleukin 1 receptor type 2 Source HGNC Symbol Acc HGNC 5994
D03	SBH0602785	ENST00000482701.5	IL1RL1	ENSG00000115602	interleukin 1 receptor like 1 Source HGNC Symbol Acc HGNC 5998
D04	SBH0225582	ENST00000226730.4	IL2	ENSG00000109471	interleukin 2 Source HGNC Symbol Acc HGNC 6001
D05	SBH1220106	ENST00000611104.2	IL21	ENSG00000138684	interleukin 21 Source HGNC Symbol Acc HGNC 6005
D06	SBH0567688	ENST00000447847.1	IL2RA	ENSG00000134460	interleukin 2 receptor subunit alpha Source HGNC Symbol Acc HGNC 6008
D07	SBH1220109	ENST00000350025.2	IL4	ENSG00000113520	interleukin 4 Source HGNC Symbol Acc HGNC 6014
D08	SBH0492526	ENST00000565915.5	IL4R	ENSG00000077238	interleukin 4 receptor Source HGNC Symbol Acc HGNC 6015
D09	SBH1220110	ENST00000231454.6	IL5	ENSG00000113525	interleukin 5 Source HGNC Symbol Acc HGNC 6016
D10	SBH1220114	ENST00000274520.1	IL9	ENSG00000145839	interleukin 9 Source HGNC Symbol Acc HGNC 6029
D11	SBH1220122	ENST00000245414.9	IRF1	ENSG00000125347	interferon regulatory factor 1 Source HGNC Symbol Acc HGNC 6116
D12	SBH0409342	ENST00000380956.9	IRF4	ENSG00000137265	interferon regulatory factor 4 Source HGNC Symbol Acc HGNC 6119
E01	SBH0216986	ENST00000268638.10	IRF8	ENSG00000140968	interferon regulatory factor 8 Source HGNC Symbol Acc HGNC 5358
E02	SBH1220142	ENST00000342505.5	JAK1	ENSG00000162434	Janus kinase 1 Source HGNC Symbol Acc HGNC 6190
E03	SBH0495660	ENST00000372217.5	KIF2C	ENSG00000142945	kinesin family member 2C Source HGNC Symbol Acc HGNC 6393
E04	SBH0162351	ENST00000260061.9	LRRC32	ENSG00000137507	leucine rich repeat containing 32 Source HGNC Symbol Acc HGNC 4161
E05	SBH0429226	ENST00000326043.5	MAF	ENSG00000178573	MAF bZIP transcription factor Source HGNC Symbol Acc HGNC 6776
E06	SBH0113462	ENST00000316528.12	MYB	ENSG00000118513	MYB proto-oncogene, transcription factor Source HGNC Symbol Acc HGNC 7545
E07	SBH0171265	ENST00000591814.5	NFATC1	ENSG00000131196	nuclear factor of activated T cells 1 Source HGNC Symbol Acc HGNC 7775
E08	SBH0361870	ENST00000609943.5	NFATC2	ENSG00000101096	nuclear factor of activated T cells 2 Source HGNC Symbol Acc HGNC 7776
E09	SBH0110115	ENST00000550763.1	NR4A1	ENSG00000123358	nuclear receptor subfamily 4 group A member 1 Source HGNC Symbol Acc HGNC 7980
E10	SBH0467547	ENST00000395097.7	NR4A3	ENSG00000119508	nuclear receptor subfamily 4 group A member 3 Source HGNC Symbol Acc HGNC 7982
E11	SBH0135910	ENST00000421351.4	PERP	ENSG00000112378	PERP, TP53 apoptosis effector Source HGNC Symbol Acc HGNC 17637
E12	SBH0352509	ENST00000508588.5	PKD2	ENSG00000118762	polycystin 2, transient receptor potential cation channel Source HGNC Symbol Acc HGNC 9009
F01	SBH0111562	ENST00000625670.2	POU2F2	ENSG00000028277	POU class 2 homeobox 2 Source HGNC Symbol Acc HGNC 9213
F02	SBH0521265	ENST00000652522.1	PPARG	ENSG00000132170	peroxisome proliferator activated receptor gamma Source HGNC Symbol Acc HGNC 9236
F03	SBH1220362	ENST00000394479.3	REL	ENSG00000162924	REL proto-oncogene, NF-kB subunit Source HGNC Symbol Acc HGNC 9954
F04	SBH0657475	ENST00000625761.2	RELB	ENSG00000104856	RELB proto-oncogene, NF-kB subunit Source HGNC Symbol Acc HGNC 9956
F05	SBH0660238	ENST00000551975.5	RORA	ENSG00000069667	RAR related orphan receptor A Source HGNC Symbol Acc HGNC 10258
F06	SBH1220375	ENST00000356728.10	RORC	ENSG00000143365	RAR related orphan receptor C Source HGNC Symbol Acc HGNC 10260
F07	SBH0384721	ENST00000437180.5	RUNX1	ENSG00000159216	runt related transcription factor 1 Source HGNC Symbol Acc HGNC 10471
F08	SBH0602622	ENST00000496967.1	RUNX3	ENSG00000020633	runt related transcription factor 3 Source HGNC Symbol Acc HGNC 10473
F09	SBH1220412	ENST00000644787.1	SOCS1	ENSG00000185338	suppressor of cytokine signaling 1 Source HGNC Symbol Acc HGNC 19383
F10	SBH0252460	ENST00000306503.5	SOCS5	ENSG00000171150	suppressor of cytokine signaling 5 Source HGNC Symbol Acc HGNC 16852

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0333289	ENST00000361099.7	STAT1	ENSG00000115415	signal transducer and activator of transcription 1 Source HGNC Symbol Acc HGNC 11362
F12	SBH1220423	ENST00000392320.7	STAT4	ENSG00000138378	signal transducer and activator of transcription 4 Source HGNC Symbol Acc HGNC 11365
G01	SBH1220424	ENST00000300134.8	STAT6	ENSG00000166888	signal transducer and activator of transcription 6 Source HGNC Symbol Acc HGNC 11368
G02	SBH1220435	ENST00000177694.2	TBX21	ENSG00000073861	T-box 21 Source HGNC Symbol Acc HGNC 11599
G03	SBH0261061	ENST00000343820.9	TGIF1	ENSG00000177426	TGFB induced factor homeobox 1 Source HGNC Symbol Acc HGNC 11776
G04	SBH0092782	ENST00000355622.8	TLR4	ENSG00000136869	toll like receptor 4 Source HGNC Symbol Acc HGNC 11850
G05	SBH1220464	ENST00000436693.6	TLR6	ENSG00000174130	toll like receptor 6 Source HGNC Symbol Acc HGNC 16711
G06	SBH1220471	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G07	SBH1220476	ENST00000377507.7	TNFRSF9	ENSG00000049249	TNF receptor superfamily member 9 Source HGNC Symbol Acc HGNC 11924
G08	SBH1220478	ENST00000239849.8	TNFSF11	ENSG00000120659	TNF superfamily member 11 Source HGNC Symbol Acc HGNC 11926
G09	SBH0034165	ENST00000361421.2	TOX	ENSG00000198846	thymocyte selection associated high mobility group box Source HGNC Symbol Acc HGNC 18988
G10	SBH0401270	ENST00000342697.5	TP53INP1	ENSG00000164938	tumor protein p53 inducible nuclear protein 1 Source HGNC Symbol Acc HGNC 18022
G11	SBH0185323	ENST00000361696.9	UTS2	ENSG00000049247	urotensin 2 Source HGNC Symbol Acc HGNC 12636
G12	SBH0375959	ENST00000487542.1	ZBTB7B	ENSG00000160685	zinc finger and BTB domain containing 7B Source HGNC Symbol Acc HGNC 18668
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 µl reactions: 20 µl 8x gDNA Removal Mix, 10 µl Reverse Transcription Enzyme, 40 µl Reverse Transcription Mix (containing RT primers), 20 µl Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 µl QuantiNova SYBR Green RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl 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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