

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

## Human Hematopoiesis

Cat. no. 249950 SBHS-054ZR

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](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	ANGPT1	APC	ASH2L	BLNK	CBFB	CCR1	CD14	CD164	CD1D	CD2	CD27	CD34
B	CD3D	CD3G	CD4	CD44	CD80	CD86	CD8A	CEBPE	CEBPG	CHST15	CSF1	CSF2
C	DLL1	ETS1	ETV6	FLT3LG	FUT10	FZD1	GATA1	GATA2	HDAC4	HDAC5	HDAC7	HDAC9
D	IL10	IL11	IL12B	IL1A	IL2	IL20	IL25	IL31RA	IL6ST	INHHA	INHBA	JAG1
E	JAG2	KDR	KIT	KITLG	LEF1	LMO2	LRMP	MAL	MAP4K1	MMP9	NCOA6	NOS2
F	NOTCH1	NOTCH2	NOTCH4	PAX5	PECAM1	PF4	PTPRC	RBPJ	RUNX1	SFXN1	SOC55	SPP1
G	STAT1	STAT3	STIM2	TAL1	TEK	TLR3	TLR4	TNFSF11	TRIM10	VAV1	VEGFA	WNT3A
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	SBH1219739	ENST00000520734.5	ANGPT1	ENSG00000154188	angiotensinogen 1 Source HGNC Symbol Acc HGNC 484
A02	SBH1219746	ENST00000512211.6	APC	ENSG00000134982	APC, WNT signaling pathway regulator Source HGNC Symbol Acc HGNC 583
A03	SBH0252367	ENST00000521652.5	ASH2L	ENSG00000129691	ASH2 like, histone lysine methyltransferase complex subunit Source HGNC Symbol Acc HGNC 744
A04	SBH0212154	ENST00000224337.9	BLNK	ENSG00000095585	B cell linker Source HGNC Symbol Acc HGNC 14211
A05	SBH0277745	ENST00000412916.6	CBFB	ENSG00000067955	core-binding factor subunit beta Source HGNC Symbol Acc HGNC 1539
A06	SBH1219851	ENST00000296140.4	CCR1	ENSG00000163823	C-C motif chemokine receptor 1 Source HGNC Symbol Acc HGNC 1602
A07	SBH1219857	ENST00000512545.1	CD14	ENSG00000170458	CD14 molecule Source HGNC Symbol Acc HGNC 1628
A08	SBH0624425	ENST00000512821.5	CD164	ENSG00000135535	CD164 molecule Source HGNC Symbol Acc HGNC 1632
A09	SBH0361611	ENST00000368171.3	CD1D	ENSG00000158473	CD1d molecule Source HGNC Symbol Acc HGNC 1637
A10	SBH0125518	ENST00000369477.1	CD2	ENSG00000116824	CD2 molecule Source HGNC Symbol Acc HGNC 1639
A11	SBH1219859	ENST00000266557.3	CD27	ENSG00000139193	CD27 molecule Source HGNC Symbol Acc HGNC 11922
A12	SBH0234693	ENST00000356522.4	CD34	ENSG00000174059	CD34 molecule Source HGNC Symbol Acc HGNC 1662
B01	SBH0400296	ENST00000526561.1	CD3D	ENSG00000167286	CD3d molecule Source HGNC Symbol Acc HGNC 1673
B02	SBH0490458	ENST00000528540.5	CD3G	ENSG00000160654	CD3g molecule Source HGNC Symbol Acc HGNC 1675
B03	SBH1219860	ENST00000011653.9	CD4	ENSG000001010610	CD4 molecule Source HGNC Symbol Acc HGNC 1678
B04	SBH0074994	ENST00000428726.7	CD44	ENSG00000026508	CD44 molecule (Indian blood group) Source HGNC Symbol Acc HGNC 1681
B05	SBH1219864	ENST00000264246.8	CD80	ENSG00000121594	CD80 molecule Source HGNC Symbol Acc HGNC 1700
B06	SBH0280451	ENST00000393627.6	CD86	ENSG00000114013	CD86 molecule Source HGNC Symbol Acc HGNC 1705
B07	SBH0013530	ENST00000283635.7	CD8A	ENSG00000153563	CD8a molecule Source HGNC Symbol Acc HGNC 1706
B08	SBH0026360	ENST00000206513.5	CEBPE	ENSG00000092067	CCAAT enhancer binding protein epsilon Source HGNC Symbol Acc HGNC 1836
B09	SBH0228390	ENST00000585933.2	CEBPG	ENSG00000153879	CCAAT enhancer binding protein gamma Source HGNC Symbol Acc HGNC 1837
B10	SBH0355871	ENST00000628426.1	CHST15	ENSG00000182022	carbohydrate sulfotransferase 15 Source HGNC Symbol Acc HGNC 18137
B11	SBH1219913	ENST00000420111.6	CSF1	ENSG00000184371	colony stimulating factor 1 Source HGNC Symbol Acc HGNC 2432
B12	SBH1219914	ENST00000296871.4	CSF2	ENSG00000164400	colony stimulating factor 2 Source HGNC Symbol Acc HGNC 2434
C01	SBH0070314	ENST00000630500.1	DLL1	ENSG00000198719	delta like canonical Notch ligand 1 Source HGNC Symbol Acc HGNC 2908
C02	SBH0541614	ENST00000526145.6	ETS1	ENSG00000134954	ETS proto-oncogene 1, transcription factor Source HGNC Symbol Acc HGNC 3488
C03	SBH0453908	ENST00000541426.1	ETV6	ENSG00000139083	ETS variant 6 Source HGNC Symbol Acc HGNC 3495
C04	SBH0334488	ENST00000601800.5	FLT3LG	ENSG00000090554	fms related tyrosine kinase 3 ligand Source HGNC Symbol Acc HGNC 3766
C05	SBH0257790	ENST00000518672.5	FUT10	ENSG00000172728	fucosyltransferase 10 Source HGNC Symbol Acc HGNC 19234
C06	SBH0084545	ENST00000287934.3	FZD1	ENSG00000157240	frizzled class receptor 1 Source HGNC Symbol Acc HGNC 4038
C07	SBH0536812	ENST00000651144.1	GATA1	ENSG00000102145	GATA binding protein 1 Source HGNC Symbol Acc HGNC 4170
C08	SBH0082748	ENST00000487848.5	GATA2	ENSG00000179348	GATA binding protein 2 Source HGNC Symbol Acc HGNC 4171
C09	SBH0538846	ENST00000345617.7	HDAC4	ENSG00000068024	histone deacetylase 4 Source HGNC Symbol Acc HGNC 14063
C10	SBH0019397	ENST00000586802.5	HDAC5	ENSG00000108840	histone deacetylase 5 Source HGNC Symbol Acc HGNC 14068
		ENST00000354		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0071727	334.7	HDAC7	061273	histone deacetylase 7 Source HGNC Symbol Acc HGNC 14067
C12	SBH0517526	ENST00000441542.6	HDAC9	ENSG00000048052	histone deacetylase 9 Source HGNC Symbol Acc HGNC 14065
D01	SBH1220095	ENST00000423557.1	IL10	ENSG000000136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
D02	SBH1220097	ENST00000585513.1	IL11	ENSG000000095752	interleukin 11 Source HGNC Symbol Acc HGNC 5966
D03	SBH1220099	ENST00000231228.2	IL12B	ENSG000000113302	interleukin 12B Source HGNC Symbol Acc HGNC 5970
D04	SBH0663647	ENST00000263339.3	IL1A	ENSG000000115008	interleukin 1 alpha Source HGNC Symbol Acc HGNC 5991
D05	SBH0225582	ENST00000226730.4	IL2	ENSG000000109471	interleukin 2 Source HGNC Symbol Acc HGNC 6001
D06	SBH0348023	ENST00000391930.3	IL20	ENSG000000162891	interleukin 20 Source HGNC Symbol Acc HGNC 6002
D07	SBH0573219	ENST00000329715.2	IL25	ENSG000000166090	interleukin 25 Source HGNC Symbol Acc HGNC 13765
D08	SBH0176257	ENST00000652347.1	IL31RA	ENSG000000164509	interleukin 31 receptor A Source HGNC Symbol Acc HGNC 18969
D09	SBH0280973	ENST00000503773.6	IL6ST	ENSG000000134352	interleukin 6 signal transducer Source HGNC Symbol Acc HGNC 6021
D10	SBH1220115	ENST00000243786.3	INHBA	ENSG000000123999	inhibin subunit alpha Source HGNC Symbol Acc HGNC 6065
D11	SBH1220116	ENST00000242208.5	INHBA	ENSG000000122641	inhibin subunit beta A Source HGNC Symbol Acc HGNC 6066
D12	SBH0407654	ENST00000254958.10	JAG1	ENSG000000101384	jagged 1 Source HGNC Symbol Acc HGNC 6188
E01	SBH0627052	ENST00000546616.1	JAG2	ENSG000000184916	jagged 2 Source HGNC Symbol Acc HGNC 6189
E02	SBH0020198	ENST00000263923.5	KDR	ENSG000000128052	kinase insert domain receptor Source HGNC Symbol Acc HGNC 6307
E03	SBH0452028	ENST00000288135.5	KIT	ENSG000000157404	KIT proto-oncogene receptor tyrosine kinase Source HGNC Symbol Acc HGNC 6342
E04	SBH0076738	ENST00000644744.1	KITLG	ENSG000000049130	KIT ligand Source HGNC Symbol Acc HGNC 6343
E05	SBH1220167	ENST00000265165.6	LEF1	ENSG000000138795	lymphoid enhancer binding factor 1 Source HGNC Symbol Acc HGNC 6551
E06	SBH0608405	ENST00000411482.1	LMO2	ENSG000000135363	LIM domain only 2 Source HGNC Symbol Acc HGNC 6642
E07	SBH0101110	ENST00000547044.5	LRMP	ENSG000000118308	lymphoid restricted membrane protein Source HGNC Symbol Acc HGNC 6690
E08	SBH1220186	ENST00000354078.7	MAL	ENSG000000172005	mal, T cell differentiation protein Source HGNC Symbol Acc HGNC 6817
E09	SBH0012271	ENST00000396857.7	MAP4K1	ENSG000000104814	mitogen-activated protein kinase kinase kinase 1 Source HGNC Symbol Acc HGNC 6863
E10	SBH0471278	ENST00000372330.3	MMP9	ENSG000000100985	matrix metalloproteinase 9 Source HGNC Symbol Acc HGNC 7176
E11	SBH1220238	ENST00000612493.4	NCOA6	ENSG000000198646	nuclear receptor coactivator 6 Source HGNC Symbol Acc HGNC 15936
E12	SBH0408796	ENST00000313735.10	NOS2	ENSG000000007171	nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873
F01	SBH0615258	ENST00000277541.7	NOTCH1	ENSG000000148400	notch 1 Source HGNC Symbol Acc HGNC 7881
F02	SBH0378554	ENST00000256646.7	NOTCH2	ENSG000000134250	notch 2 Source HGNC Symbol Acc HGNC 7882
F03	SBH1220273	ENST00000375023.3	NOTCH4	ENSG000000204301	notch 4 Source HGNC Symbol Acc HGNC 7884
F04	SBH0623717	ENST00000520281.5	PAX5	ENSG000000196092	paired box 5 Source HGNC Symbol Acc HGNC 8619
F05	SBH1220299	ENST00000563924.6	PECAM1	ENSG000000261371	platelet and endothelial cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 8823
F06	SBH0185751	ENST00000296029.3	PF4	ENSG000000163737	platelet factor 4 Source HGNC Symbol Acc HGNC 8861
F07	SBH0081266	ENST00000491302.1	PTPRC	ENSG000000081237	protein tyrosine phosphatase, receptor type C Source HGNC Symbol Acc HGNC 9666
F08	SBH0412189	ENST00000510778.6	RBPJ	ENSG000000168214	recombination signal binding protein for immunoglobulin kappa J region Source HGNC Symbol Acc HGNC 5724
F09	SBH0384721	ENST00000437180.5	RUNX1	ENSG000000159216	runt related transcription factor 1 Source HGNC Symbol Acc HGNC 10471
F10	SBH0248093	ENST00000502865.5	SFXN1	ENSG000000164466	sideroflexin 1 Source HGNC Symbol Acc HGNC 16085

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0252460	ENST00000306503.5	SOCS5	ENSG00000171150	suppressor of cytokine signaling 5 Source HGNC Symbol Acc HGNC 16852
F12	SBH0180162	ENST00000237623.11	SPP1	ENSG00000118785	secreted phosphoprotein 1 Source HGNC Symbol Acc HGNC 11255
G01	SBH0333289	ENST00000361099.7	STAT1	ENSG00000115415	signal transducer and activator of transcription 1 Source HGNC Symbol Acc HGNC 11362
G02	SBH0341614	ENST00000404395.3	STAT3	ENSG00000168610	signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364
G03	SBH0363475	ENST00000467011.5	STIM2	ENSG00000109689	stromal interaction molecule 2 Source HGNC Symbol Acc HGNC 19205
G04	SBH0276450	ENST00000294339.3	TAL1	ENSG00000162367	TAL bHLH transcription factor 1, erythroid differentiation factor Source HGNC Symbol Acc HGNC 11556
G05	SBH1220437	ENST00000380036.9	TEK	ENSG00000120156	TEK receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11724
G06	SBH1220462	ENST00000513189.1	TLR3	ENSG00000164342	toll like receptor 3 Source HGNC Symbol Acc HGNC 11849
G07	SBH0092782	ENST00000355622.8	TLR4	ENSG00000136869	toll like receptor 4 Source HGNC Symbol Acc HGNC 11850
G08	SBH1220478	ENST00000239849.8	TNFSF11	ENSG00000120659	TNF superfamily member 11 Source HGNC Symbol Acc HGNC 11926
G09	SBH0234271	ENST00000376704.3	TRIM10	ENSG00000204613	tripartite motif containing 10 Source HGNC Symbol Acc HGNC 10072
G10	SBH0216129	ENST00000596764.5	VAV1	ENSG00000141968	vav guanine nucleotide exchange factor 1 Source HGNC Symbol Acc HGNC 12657
G11	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
G12	SBH1220532	ENST00000284523.2	WNT3A	ENSG00000154342	Wnt family member 3A Source HGNC Symbol Acc HGNC 15983
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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