

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

## Human Cell Lineage Identification

Cat. no. 249950 SBHS-508ZR

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	ALB	APOH	AQP1	BMP4	CCR5	CD34	CD3E	CD79A	CHAT	COL10A1	COMP	CPA1
B	CTSK	DCN	DCX	DNMT3B	DPP4	ENO1	FABP7	FGF5	FOXA1	FOXD3	FOXP1	G6PC
C	GAD1	GAD2	GALC	GATA1	GATA2	GATA6	GBX2	GDF3	GFAP	HAND1	HAND2	HES5
D	HNF4A	IBSP	IGF2	INS	ITGB4	KRT10	KRT14	KRT19	LEFTY1	MAP3K12	MIOX	MIXL1
E	MSLN	MYH1	MYH11	MYH7	MYL3	NANOG	NEUROD1	NEUROG2	NKX2-2	NPPA	OLIG2	OTX2
F	PDGFRA	PODXL	POU4F2	POU5F1	PROM1	PTCRA	RCVRN	RUNX1	RYR2	SFTPB	SFTPD	SLC17A6
G	SLC17A7	SLC2A2	SLC32A1	SMTN	SOX17	SOX2	SOX7	TBXT	TAT	TYR	ZFP42	ZIC1
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	SBH1219733	ENST00000621628.4	ALB	ENSG00000163631	albumin Source HGNC Symbol Acc HGNC 399
A02	SBH0497419	ENST00000581797.5	APOH	ENSG00000091583	apolipoprotein H Source HGNC Symbol Acc HGNC 616
A03	SBH0349409	ENST00000482461.1	AQP1	ENSG00000240583	aquaporin 1 (Colton blood group) Source HGNC Symbol Acc HGNC 633
A04	SBH0613995	ENST00000417573.5	BMP4	ENSG00000125378	bone morphogenetic protein 4 Source HGNC Symbol Acc HGNC 1071
A05	SBH1219854	ENST00000292303.4	CCR5	ENSG00000160791	C-C motif chemokine receptor 5 (gene/pseudogene) Source HGNC Symbol Acc HGNC 1606
A06	SBH0234693	ENST00000356522.4	CD34	ENSG00000174059	CD34 molecule Source HGNC Symbol Acc HGNC 1662
A07	SBH0232919	ENST00000528600.1	CD3E	ENSG00000198851	CD3e molecule Source HGNC Symbol Acc HGNC 1674
A08	SBH0089394	ENST00000221972.7	CD79A	ENSG00000105369	CD79a molecule Source HGNC Symbol Acc HGNC 1698
A09	SBH0110465	ENST00000337653.6	CHAT	ENSG00000070748	choline O-acetyltransferase Source HGNC Symbol Acc HGNC 1912
A10	SBH0610710	ENST00000243222.8	COL10A1	ENSG00000123500	collagen type X alpha 1 chain Source HGNC Symbol Acc HGNC 2185
A11	SBH0264616	ENST00000425807.1	COMP	ENSG00000105664	cartilage oligomeric matrix protein Source HGNC Symbol Acc HGNC 2227
A12	SBH0549783	ENST00000604896.5	CPA1	ENSG00000091704	carboxypeptidase A1 Source HGNC Symbol Acc HGNC 2296
B01	SBH0609743	ENST00000443913.1	CTSK	ENSG00000143387	cathepsin K Source HGNC Symbol Acc HGNC 2536
B02	SBH1219942	ENST00000420120.6	DCN	ENSG000000111465	decorin Source HGNC Symbol Acc HGNC 2705
B03	SBH0382691	ENST00000488120.2	DCX	ENSG00000077279	doublecortin Source HGNC Symbol Acc HGNC 2714
B04	SBH0465845	ENST00000328111.6	DNMT3B	ENSG00000088305	DNA methyltransferase 3 beta Source HGNC Symbol Acc HGNC 2979
B05	SBH0072994	ENST00000490286.5	DPP4	ENSG00000197635	dipeptidyl peptidase 4 Source HGNC Symbol Acc HGNC 3009
B06	SBH0555349	ENST00000234590.10	ENO1	ENSG00000074800	enolase 1 Source HGNC Symbol Acc HGNC 3350
B07	SBH0346793	ENST00000368444.8	FABP7	ENSG00000164434	fatty acid binding protein 7 Source HGNC Symbol Acc HGNC 3562
B08	SBH0225015	ENST00000312465.11	FGF5	ENSG00000138675	fibroblast growth factor 5 Source HGNC Symbol Acc HGNC 3683
B09	SBH0233971	ENST00000545425.2	FOXA1	ENSG00000129514	forkhead box A1 Source HGNC Symbol Acc HGNC 5021
B10	SBH0331553	ENST00000371116.3	FOXD3	ENSG00000187140	forkhead box D3 Source HGNC Symbol Acc HGNC 3804
B11	SBH0366035	ENST00000637220.1	FOXP1	ENSG00000176165	forkhead box G1 Source HGNC Symbol Acc HGNC 3811
B12	SBH0049367	ENST00000592383.5	G6PC	ENSG00000131482	glucose-6-phosphatase catalytic subunit Source HGNC Symbol Acc HGNC 4056
C01	SBH0146386	ENST00000344257.9	GAD1	ENSG00000128683	glutamate decarboxylase 1 Source HGNC Symbol Acc HGNC 4092
C02	SBH0363903	ENST00000428517.2	GAD2	ENSG00000136750	glutamate decarboxylase 2 Source HGNC Symbol Acc HGNC 4093
C03	SBH0206871	ENST00000557316.5	GALC	ENSG00000054983	galactosylceramidase Source HGNC Symbol Acc HGNC 4115
C04	SBH0536812	ENST00000651144.1	GATA1	ENSG00000102145	GATA binding protein 1 Source HGNC Symbol Acc HGNC 4170
C05	SBH0082748	ENST00000487848.5	GATA2	ENSG00000179348	GATA binding protein 2 Source HGNC Symbol Acc HGNC 4171
C06	SBH0297185	ENST00000269216.8	GATA6	ENSG00000141448	GATA binding protein 6 Source HGNC Symbol Acc HGNC 4174
C07	SBH0350562	ENST00000465889.1	GBX2	ENSG00000168505	gastrulation brain homeobox 2 Source HGNC Symbol Acc HGNC 4186
C08	SBH1220026	ENST00000329913.4	GDF3	ENSG00000184344	growth differentiation factor 3 Source HGNC Symbol Acc HGNC 4218
C09	SBH0011470	ENST00000639277.1	GFAP	ENSG00000131095	glial fibrillary acidic protein Source HGNC Symbol Acc HGNC 4235
C10	SBH0331125	ENST00000231121.3	HAND1	ENSG00000113196	heart and neural crest derivatives expressed 1 Source HGNC Symbol Acc HGNC 4807
		ENST00000621		ENSG000000	heart and neural crest derivatives expressed 2 Source HGNC Symbol Acc HGNC

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0212563	866.1	HAND2	164107	4808
C12	SBH1220055	ENST00000378453.4	HES5	ENSG00000197921	hes family bHLH transcription factor 5 Source HGNC Symbol Acc HGNC 19764
D01	SBH0483648	ENST00000609795.5	HNF4A	ENSG00000101076	hepatocyte nuclear factor 4 alpha Source HGNC Symbol Acc HGNC 5024
D02	SBH0509296	ENST00000226284.7	IBSP	ENSG00000029559	integrin binding sialoprotein Source HGNC Symbol Acc HGNC 5341
D03	SBH0264962	ENST00000418738.2	IGF2	ENSG00000167244	insulin like growth factor 2 Source HGNC Symbol Acc HGNC 5466
D04	SBH0403664	ENST00000250971.7	INS	ENSG00000254647	insulin Source HGNC Symbol Acc HGNC 6081
D05	SBH1220138	ENST00000450894.7	ITGB4	ENSG00000132470	integrin subunit beta 4 Source HGNC Symbol Acc HGNC 6158
D06	SBH0284123	ENST00000269576.6	KRT10	ENSG00000186395	keratin 10 Source HGNC Symbol Acc HGNC 6413
D07	SBH1220158	ENST00000167586.7	KRT14	ENSG00000186847	keratin 14 Source HGNC Symbol Acc HGNC 6416
D08	SBH1220159	ENST00000361566.7	KRT19	ENSG00000171345	keratin 19 Source HGNC Symbol Acc HGNC 6436
D09	SBH1220168	ENST00000272134.5	LEFTY1	ENSG00000243709	left-right determination factor 1 Source HGNC Symbol Acc HGNC 6552
D10	SBH0543379	ENST00000548690.1	MAP3K12	ENSG00000139625	mitogen-activated protein kinase kinase kinase 12 Source HGNC Symbol Acc HGNC 6851
D11	SBH0624940	ENST00000395732.7	MIOX	ENSG00000100253	myo-inositol oxygenase Source HGNC Symbol Acc HGNC 14522
D12	SBH0542215	ENST00000557734.1	MIXL1	ENSG00000185155	Mix paired-like homeobox Source HGNC Symbol Acc HGNC 13363
E01	SBH0091299	ENST00000563651.5	MSLN	ENSG00000102854	mesothelin Source HGNC Symbol Acc HGNC 7371
E02	SBH0026734	ENST00000226207.6	MYH1	ENSG00000109061	myosin heavy chain 1 Source HGNC Symbol Acc HGNC 7567
E03	SBH0353245	ENST00000576790.7	MYH11	ENSG00000133392	myosin heavy chain 11 Source HGNC Symbol Acc HGNC 7569
E04	SBH0341418	ENST00000355349.4	MYH7	ENSG00000092054	myosin heavy chain 7 Source HGNC Symbol Acc HGNC 7577
E05	SBH0101358	ENST00000395869.5	MYL3	ENSG00000160808	myosin light chain 3 Source HGNC Symbol Acc HGNC 7584
E06	SBH1225384	ENST00000229307.9	NANOG	ENSG00000111704	Nanog homeobox Source HGNC Symbol Acc HGNC 20857
E07	SBH0212925	ENST00000295108.3	NEUROD1	ENSG00000162992	neuronal differentiation 1 Source HGNC Symbol Acc HGNC 7762
E08	SBH0511587	ENST00000313341.4	NEUROG2	ENSG00000178403	neurogenin 2 Source HGNC Symbol Acc HGNC 13805
E09	SBH0273624	ENST00000377142.4	NKX2-2	ENSG00000125820	NK2 homeobox 2 Source HGNC Symbol Acc HGNC 7835
E10	SBH0369836	ENST00000610706.1	NPPA	ENSG00000175206	natriuretic peptide A Source HGNC Symbol Acc HGNC 7939
E11	SBH0642856	ENST00000333337.3	OLIG2	ENSG00000205927	oligodendrocyte transcription factor 2 Source HGNC Symbol Acc HGNC 9398
E12	SBH0166045	ENST00000554788.5	OTX2	ENSG00000165588	orthodenticle homeobox 2 Source HGNC Symbol Acc HGNC 8522
F01	SBH1220292	ENST00000257290.10	PDGFRA	ENSG00000134853	platelet derived growth factor receptor alpha Source HGNC Symbol Acc HGNC 8803
F02	SBH0294966	ENST00000322985.9	PODXL	ENSG00000128567	podocalyxin like Source HGNC Symbol Acc HGNC 9171
F03	SBH0081659	ENST00000281321.3	POU4F2	ENSG00000151615	POU class 4 homeobox 2 Source HGNC Symbol Acc HGNC 9219
F04	SBH1225387	ENST00000513407.1	POU5F1	ENSG00000204531	POU class 5 homeobox 1 Source HGNC Symbol Acc HGNC 9221
F05	SBH0498976	ENST00000510224.5	PROM1	ENSG00000007062	prominin 1 Source HGNC Symbol Acc HGNC 9454
F06	SBH0372693	ENST00000446507.5	PTCRA	ENSG00000171611	pre T cell antigen receptor alpha Source HGNC Symbol Acc HGNC 21290
F07	SBH0465859	ENST00000570909.3	RCVRN	ENSG00000109047	recoverin Source HGNC Symbol Acc HGNC 9937
F08	SBH0384721	ENST00000437180.5	RUNX1	ENSG00000159216	runt related transcription factor 1 Source HGNC Symbol Acc HGNC 10471
F09	SBH0373304	ENST00000609253.1	RYR2	ENSG00000198626	ryanodine receptor 2 Source HGNC Symbol Acc HGNC 10484
F10	SBH0195943	ENST00000409383.5	SFTPB	ENSG00000168878	surfactant protein B Source HGNC Symbol Acc HGNC 10801

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220396	ENST00000372292.8	SFTPD	ENSG00000133661	surfactant protein D Source HGNC Symbol Acc HGNC 10803
F12	SBH0056399	ENST00000648880.1	SLC17A6	ENSG00000104888	solute carrier family 17 member 6 Source HGNC Symbol Acc HGNC 16703
G01	SBH0139434	ENST00000600672.5	SLC17A7	ENSG00000104888	solute carrier family 17 member 7 Source HGNC Symbol Acc HGNC 16704
G02	SBH0303859	ENST00000471379.1	SLC2A2	ENSG00000163581	solute carrier family 2 member 2 Source HGNC Symbol Acc HGNC 11006
G03	SBH0333092	ENST00000217420.2	SLC32A1	ENSG00000101438	solute carrier family 32 member 1 Source HGNC Symbol Acc HGNC 11018
G04	SBH0255094	ENST00000612341.4	SMTN	ENSG00000183963	smoothelin Source HGNC Symbol Acc HGNC 11126
G05	SBH1220417	ENST00000297316.5	SOX17	ENSG00000164736	SRY-box 17 Source HGNC Symbol Acc HGNC 18122
G06	SBH0499815	ENST00000325404.3	SOX2	ENSG00000181449	SRY-box 2 Source HGNC Symbol Acc HGNC 11195
G07	SBH0095223	ENST00000304501.2	SOX7	ENSG00000171056	SRY-box 7 Source HGNC Symbol Acc HGNC 18196
G08	SBH0142967	ENST00000366871.7	TBXT	ENSG00000164458	T-box transcription factor T Source HGNC Symbol Acc HGNC 11515
G09	SBH0437274	ENST00000355962.5	TAT	ENSG00000198650	tyrosine aminotransferase Source HGNC Symbol Acc HGNC 11573
G10	SBH0490389	ENST00000526139.1	TYR	ENSG00000077498	tyrosinase Source HGNC Symbol Acc HGNC 12442
G11	SBH0270230	ENST00000326866.5	ZFP42	ENSG00000179059	ZFP42 zinc finger protein Source HGNC Symbol Acc HGNC 30949
G12	SBH0050477	ENST00000474034.1	ZIC1	ENSG00000152977	Zic family member 1 Source HGNC Symbol Acc HGNC 12872
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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