

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

Human Mesenchymal Stem Cells

Cat. no. 249950 SBHS-082ZA

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 for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	ABCB1	ACTA2	ALCAM	ANPEP	ANXA5	BDNF	BGLAP	BMP2	BMP4	BMP6	BMP7	CASP3
B	CD44	COL1A1	CSF2	CSF3	CTNNB1	EGF	ENG	ERBB2	FGF10	FGF2	FUT1	FUT4
C	FZD9	GDF15	GDF5	GDF6	GDF7	GTF3A	HAT1	HDAC1	HGF	HNF1A	ICAM1	IFNG
D	IGF1	IL10	IL1B	IL6	INS	ITGA6	ITGAV	ITGAX	ITGB1	JAG1	KAT2B	KDR
E	KITLG	LIF	MCAM	MMP2	NES	NGFR	NOTCH1	NT5E	NUDT6	PDGFRB	PIGS	POU5F1
F	PPARG	PROM1	PTK2	PTPRC	RHOA	RUNX2	SLC17A5	SMAD4	SMURF1	SMURF2	SOX2	SOX9
G	TBX5	TERT	TGFB1	TGFB3	THY1	TNF	VCAM1	VEGFA	VIM	VWF	WNT3A	ZFP42
H	ACTB	B2M	GAPDH	HRPT1	RPLP0	HGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBH0346091	ENST00000622132.4	ABC1	ENSG00000085563	ATP binding cassette subfamily B member 1 Source HGNC Symbol Acc HGNC 40
A02	SBH0247260	ENST00000224784.10	ACTA2	ENSG00000107796	actin, alpha 2, smooth muscle, aorta Source HGNC Symbol Acc HGNC 130
A03	SBH0246648	ENST00000481337.5	ALCAM	ENSG00000170017	activated leukocyte cell adhesion molecule Source HGNC Symbol Acc HGNC 400
A04	SBH1219742	ENST00000300060.7	ANPEP	ENSG00000166825	alanyl aminopeptidase, membrane Source HGNC Symbol Acc HGNC 500
A05	SBH1219743	ENST00000501272.6	ANXA5	ENSG00000164111	annexin A5 Source HGNC Symbol Acc HGNC 543
A06	SBH0006040	ENST00000525528.1	BDNF	ENSG00000176697	brain derived neurotrophic factor Source HGNC Symbol Acc HGNC 1033
A07	SBH1219793	ENST00000368272.5	BGLAP	ENSG00000242252	bone gamma-carboxyglutamate protein Source HGNC Symbol Acc HGNC 1043
A08	SBH1219802	ENST00000378827.5	BMP2	ENSG00000125845	bone morphogenetic protein 2 Source HGNC Symbol Acc HGNC 1069
A09	SBH0613995	ENST00000417573.5	BMP4	ENSG00000125378	bone morphogenetic protein 4 Source HGNC Symbol Acc HGNC 1071
A10	SBH1219805	ENST00000283147.7	BMP6	ENSG00000153162	bone morphogenetic protein 6 Source HGNC Symbol Acc HGNC 1073
A11	SBH1219806	ENST00000450594.6	BMP7	ENSG00000101144	bone morphogenetic protein 7 Source HGNC Symbol Acc HGNC 1074
A12	SBH1219824	ENST00000308394.9	CASP3	ENSG00000164305	caspase 3 Source HGNC Symbol Acc HGNC 1504
B01	SBH0074994	ENST00000428726.7	CD44	ENSG00000026508	CD44 molecule (Indian blood group) Source HGNC Symbol Acc HGNC 1681
B02	SBH0268763	ENST00000225964.9	COL1A1	ENSG00000108821	collagen type I alpha 1 chain Source HGNC Symbol Acc HGNC 2197
B03	SBH1219914	ENST00000296871.4	CSF2	ENSG00000164400	colony stimulating factor 2 Source HGNC Symbol Acc HGNC 2434
B04	SBH0378721	ENST00000225474.6	CSF3	ENSG00000108342	colony stimulating factor 3 Source HGNC Symbol Acc HGNC 2438
B05	SBH0588482	ENST00000396183.7	CTNNB1	ENSG00000168036	catenin beta 1 Source HGNC Symbol Acc HGNC 2514
B06	SBH0321686	ENST00000265171.9	EGF	ENSG00000138798	epidermal growth factor Source HGNC Symbol Acc HGNC 3229
B07	SBH1219975	ENST00000480266.5	ENG	ENSG00000106991	endoglin Source HGNC Symbol Acc HGNC 3349
B08	SBH0056013	ENST00000269571.9	ERBB2	ENSG00000141736	erb-b2 receptor tyrosine kinase 2 Source HGNC Symbol Acc HGNC 3430
B09	SBH0452984	ENST00000264664.4	FGF10	ENSG00000070193	fibroblast growth factor 10 Source HGNC Symbol Acc HGNC 3666
B10	SBH1220000	ENST00000264498.7	FGF2	ENSG00000138685	fibroblast growth factor 2 Source HGNC Symbol Acc HGNC 3676
B11	SBH0495291	ENST00000601988.1	FUT1	ENSG00000174951	fucosyltransferase 1 (H blood group) Source HGNC Symbol Acc HGNC 4012
B12	SBH0522842	ENST00000358752.3	FUT4	ENSG00000196371	fucosyltransferase 4 Source HGNC Symbol Acc HGNC 4015
C01	SBH0166208	ENST00000344575.4	FZD9	ENSG00000188763	frizzled class receptor 9 Source HGNC Symbol Acc HGNC 4047
C02	SBH0038583	ENST00000604609.2	GDF15	ENSG00000130513	growth differentiation factor 15 Source HGNC Symbol Acc HGNC 30142
C03	SBH1220027	ENST00000374372.1	GDF5	ENSG00000125965	growth differentiation factor 5 Source HGNC Symbol Acc HGNC 4220
C04	SBH1220028	ENST00000287020.7	GDF6	ENSG00000156466	growth differentiation factor 6 Source HGNC Symbol Acc HGNC 4221
C05	SBH1220029	ENST00000272224.5	GDF7	ENSG00000143869	growth differentiation factor 7 Source HGNC Symbol Acc HGNC 4222
C06	SBH0321957	ENST00000419181.5	GTF3A	ENSG00000122034	general transcription factor IIIA Source HGNC Symbol Acc HGNC 4662
C07	SBH1220047	ENST00000264108.5	HAT1	ENSG00000128708	histone acetyltransferase 1 Source HGNC Symbol Acc HGNC 4821
C08	SBH0527067	ENST00000472928.5	HDAC1	ENSG00000116478	histone deacetylase 1 Source HGNC Symbol Acc HGNC 4852
C09	SBH1220058	ENST00000457544.7	HGF	ENSG00000019991	hepatocyte growth factor Source HGNC Symbol Acc HGNC 4893
C10	SBH0525478	ENST00000560968.5	HNF1A	ENSG00000135100	HNF1 homeobox A Source HGNC Symbol Acc HGNC 11621
		ENST00000264		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH1220076	832.8	ICAM1	090339	intercellular adhesion molecule 1 Source HGNC Symbol Acc HGNC 5344
C12	SBH1220090	ENST00000229 135.4	IFNG	ENSG00000 111537	interferon gamma Source HGNC Symbol Acc HGNC 5438
D01	SBH1220091	ENST00000337 514.10	IGF1	ENSG00000 017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
D02	SBH1220095	ENST00000423 557.1	IL10	ENSG00000 136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
D03	SBH0079231	ENST00000263 341.6	IL1B	ENSG00000 125538	interleukin 1 beta Source HGNC Symbol Acc HGNC 5992
D04	SBH1220111	ENST00000401 630.7	IL6	ENSG00000 136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
D05	SBH0403664	ENST00000250 971.7	INS	ENSG00000 254647	insulin Source HGNC Symbol Acc HGNC 6081
D06	SBH0096168	ENST00000264 107.11	ITGA6	ENSG00000 091409	integrin subunit alpha 6 Source HGNC Symbol Acc HGNC 6142
D07	SBH0064907	ENST00000460 641.1	ITGAV	ENSG00000 138448	integrin subunit alpha V Source HGNC Symbol Acc HGNC 6150
D08	SBH0462220	ENST00000268 296.8	ITGAX	ENSG00000 140678	integrin subunit alpha X Source HGNC Symbol Acc HGNC 6152
D09	SBH1220136	ENST00000302 278.8	ITGB1	ENSG00000 150093	integrin subunit beta 1 Source HGNC Symbol Acc HGNC 6153
D10	SBH0407654	ENST00000254 958.10	JAG1	ENSG00000 101384	jagged 1 Source HGNC Symbol Acc HGNC 6188
D11	SBH1220145	ENST00000263 754.5	KAT2B	ENSG00000 114166	lysine acetyltransferase 2B Source HGNC Symbol Acc HGNC 8638
D12	SBH0020198	ENST00000263 923.5	KDR	ENSG00000 128052	kinase insert domain receptor Source HGNC Symbol Acc HGNC 6307
E01	SBH0076738	ENST00000644 744.1	KITLG	ENSG00000 049130	KIT ligand Source HGNC Symbol Acc HGNC 6343
E02	SBH1220172	ENST00000249 075.4	LIF	ENSG00000 128342	LIF, interleukin 6 family cytokine Source HGNC Symbol Acc HGNC 6596
E03	SBH0369285	ENST00000264 036.6	MCAM	ENSG00000 076706	melanoma cell adhesion molecule Source NCBI gene Acc 4162
E04	SBH1220222	ENST00000570 308.5	MMP2	ENSG00000 087245	matrix metalloproteinase 2 Source HGNC Symbol Acc HGNC 7166
E05	SBH0585490	ENST00000368 223.4	NES	ENSG00000 132688	nestin Source HGNC Symbol Acc HGNC 7756
E06	SBH0556664	ENST00000504 201.1	NGFR	ENSG00000 064300	nerve growth factor receptor Source HGNC Symbol Acc HGNC 7809
E07	SBH0615258	ENST00000277 541.7	NOTCH1	ENSG00000 148400	notch 1 Source HGNC Symbol Acc HGNC 7881
E08	SBH0237971	ENST00000437 581.1	NT5E	ENSG00000 135318	5 -nucleotidase ecto Source HGNC Symbol Acc HGNC 8021
E09	SBH0508734	ENST00000510 735.1	NUDT6	ENSG00000 170917	nudix hydrolase 6 Source HGNC Symbol Acc HGNC 8053
E10	SBH1220293	ENST00000261 799.9	PDGFRB	ENSG00000 113721	platelet derived growth factor receptor beta Source HGNC Symbol Acc HGNC 8804
E11	SBH0240440	ENST00000484 580.6	PIGS	ENSG00000 087111	phosphatidylinositol glycan anchor biosynthesis class S Source HGNC Symbol Acc HGNC 14937
E12	SBH1225387	ENST00000513 407.1	POU5F1	ENSG00000 204531	POU class 5 homeobox 1 Source HGNC Symbol Acc HGNC 9221
F01	SBH0521265	ENST00000652 522.1	PPARG	ENSG00000 132170	peroxisome proliferator activated receptor gamma Source HGNC Symbol Acc HGNC 9236
F02	SBH0498976	ENST00000510 224.5	PROM1	ENSG00000 007062	prominin 1 Source HGNC Symbol Acc HGNC 9454
F03	SBH1220345	ENST00000523 539.5	PTK2	ENSG00000 169398	protein tyrosine kinase 2 Source HGNC Symbol Acc HGNC 9611
F04	SBH0081266	ENST00000491 302.1	PTPRC	ENSG00000 081237	protein tyrosine phosphatase, receptor type C Source HGNC Symbol Acc HGNC 9666
F05	SBH1220367	ENST00000418 115.6	RHOA	ENSG00000 067560	ras homolog family member A Source HGNC Symbol Acc HGNC 667
F06	SBH0662907	ENST00000465 038.6	RUNX2	ENSG00000 124813	runt related transcription factor 2 Source HGNC Symbol Acc HGNC 10472
F07	SBH0443978	ENST00000481 996.1	SLC17A5	ENSG00000 119899	solute carrier family 17 member 5 Source HGNC Symbol Acc HGNC 10933
F08	SBH1220406	ENST00000588 745.5	SMAD4	ENSG00000 141646	SMAD family member 4 Source HGNC Symbol Acc HGNC 6770
F09	SBH0364195	ENST00000361 125.1	SMURF1	ENSG00000 198742	SMAD specific E3 ubiquitin protein ligase 1 Source HGNC Symbol Acc HGNC 16807
F10	SBH0110570	ENST00000585 301.1	SMURF2	ENSG00000 108854	SMAD specific E3 ubiquitin protein ligase 2 Source HGNC Symbol Acc HGNC 16809

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0499815	ENST00000325404.3	SOX2	ENSG00000181449	SRY-box 2 Source HGNC Symbol Acc HGNC 11195
F12	SBH0112513	ENST00000245479.3	SOX9	ENSG00000125398	SRY-box 9 Source HGNC Symbol Acc HGNC 11204
G01	SBH0526624	ENST00000552726.1	TBX5	ENSG00000089225	T-box 5 Source HGNC Symbol Acc HGNC 11604
G02	SBH0606096	ENST00000334602.10	TERT	ENSG00000164362	telomerase reverse transcriptase Source HGNC Symbol Acc HGNC 11730
G03	SBH1220443	ENST00000598758.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G04	SBH0179529	ENST00000238682.7	TGFB3	ENSG00000119699	transforming growth factor beta 3 Source HGNC Symbol Acc HGNC 11769
G05	SBH0336000	ENST00000527590.5	THY1	ENSG00000154096	Thy-1 cell surface antigen Source HGNC Symbol Acc HGNC 11801
G06	SBH1220471	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G07	SBH1220515	ENST00000294728.7	VCAM1	ENSG00000162692	vascular cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 12663
G08	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
G09	SBH1220518	ENST00000544301.7	VIM	ENSG00000026025	vimentin Source HGNC Symbol Acc HGNC 12692
G10	SBH1220522	ENST00000261405.9	VWF	ENSG00000110799	von Willebrand factor Source HGNC Symbol Acc HGNC 12726
G11	SBH1220532	ENST00000284523.2	WNT3A	ENSG00000154342	Wnt family member 3A Source HGNC Symbol Acc HGNC 15983
G12	SBH0270230	ENST00000326866.5	ZFP42	ENSG00000179059	ZFP42 zinc finger protein Source HGNC Symbol Acc HGNC 30949
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.

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 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.