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

Human Osteogenesis

Cat. no. 249950 SBHS-026ZA

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	ACVR1	AHSG	ALPL	ANXA5	BGLAP	BGN	BMP1	BMP2	BMP3	BMP4	BMP5	BMP6
B	BMP7	BMPR1A	BMPR1B	BMPR2	CALCR	CD36	CDH11	CHRD	COL10A1	COL14A1	COL15A1	COL1A1
C	COL1A2	COL2A1	COL3A1	COL5A1	COMP	CSF1	CSF2	CSF3	CTSK	DLX5	EGF	EGFR
D	FGF1	FGF2	FGFR1	FGFR2	FLT1	FN1	GDF10	GLI1	ICAM1	IGF1	IGF1R	IGF2
E	IHH	ITGA1	ITGA2	ITGA3	ITGAM	ITGB1	MMP10	MMP2	MMP8	MMP9	NFKB1	NOG
F	PDGFA	PHEX	RUNX2	SERPINH1	SMAD1	SMAD2	SMAD3	SMAD4	SMAD5	SOX9	SP7	SPP1
G	TGFB1	TGFB2	TGFB3	TGFBR1	TGFBR2	TNF	TNFSF11	TWIST1	VCAM1	VDR	VEGFA	VEGFB
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	SBH0054194	ENST00000263640.7	ACVR1	ENSG00000115170	activin A receptor type 1 Source HGNC Symbol Acc HGNC 171
A02	SBH0370993	ENST00000411641.7	AHSG	ENSG00000145192	alpha 2-HS glycoprotein Source HGNC Symbol Acc HGNC 349
A03	SBH0499378	ENST00000374832.5	ALPL	ENSG00000162551	alkaline phosphatase, biomineralization associated Source HGNC Symbol Acc HGNC 438
A04	SBH1219743	ENST00000501272.6	ANXA5	ENSG00000164111	annexin A5 Source HGNC Symbol Acc HGNC 543
A05	SBH1219793	ENST00000368272.5	BGLAP	ENSG00000242252	bone gamma-carboxyglutamate protein Source HGNC Symbol Acc HGNC 1043
A06	SBH0184501	ENST00000492658.1	BGN	ENSG00000182492	biglycan Source HGNC Symbol Acc HGNC 1044
A07	SBH1219801	ENST00000354870.5	BMP1	ENSG00000168487	bone morphogenetic protein 1 Source HGNC Symbol Acc HGNC 1067
A08	SBH1219802	ENST00000378827.5	BMP2	ENSG00000125845	bone morphogenetic protein 2 Source HGNC Symbol Acc HGNC 1069
A09	SBH1219803	ENST00000282701.3	BMP3	ENSG00000152785	bone morphogenetic protein 3 Source HGNC Symbol Acc HGNC 1070
A10	SBH0613995	ENST00000417573.5	BMP4	ENSG00000125378	bone morphogenetic protein 4 Source HGNC Symbol Acc HGNC 1071
A11	SBH1219804	ENST00000370830.4	BMP5	ENSG00000112175	bone morphogenetic protein 5 Source HGNC Symbol Acc HGNC 1072
A12	SBH1219805	ENST00000283147.7	BMP6	ENSG00000153162	bone morphogenetic protein 6 Source HGNC Symbol Acc HGNC 1073
B01	SBH1219806	ENST00000450594.6	BMP7	ENSG00000101144	bone morphogenetic protein 7 Source HGNC Symbol Acc HGNC 1074
B02	SBH1219807	ENST00000372037.7	BMPR1A	ENSG00000107779	bone morphogenetic protein receptor type 1A Source HGNC Symbol Acc HGNC 1076
B03	SBH0153062	ENST00000515059.5	BMPR1B	ENSG00000138696	bone morphogenetic protein receptor type 1B Source HGNC Symbol Acc HGNC 1077
B04	SBH1219808	ENST00000638587.1	BMPR2	ENSG00000204217	bone morphogenetic protein receptor type 2 Source HGNC Symbol Acc HGNC 1078
B05	SBH0021274	ENST00000421592.6	CALCR	ENSG00000004948	calcitonin receptor Source HGNC Symbol Acc HGNC 1440
B06	SBH0074710	ENST00000441109.6	CD36	ENSG00000135218	CD36 molecule Source HGNC Symbol Acc HGNC 1663
B07	SBH0285104	ENST00000564317.5	CDH11	ENSG00000140937	cadherin 11 Source HGNC Symbol Acc HGNC 1750
B08	SBH0611378	ENST00000204604.5	CHRD	ENSG00000090539	chordin Source HGNC Symbol Acc HGNC 1949
B09	SBH0610710	ENST00000243222.8	COL10A1	ENSG00000123500	collagen type X alpha 1 chain Source HGNC Symbol Acc HGNC 2185
B10	SBH1219896	ENST00000434620.5	COL14A1	ENSG00000187955	collagen type XIV alpha 1 chain Source HGNC Symbol Acc HGNC 2191
B11	SBH1219897	ENST00000610452.1	COL15A1	ENSG00000204291	collagen type XV alpha 1 chain Source HGNC Symbol Acc HGNC 2192
B12	SBH0268763	ENST00000225964.9	COL1A1	ENSG00000108821	collagen type I alpha 1 chain Source HGNC Symbol Acc HGNC 2197
C01	SBH0096733	ENST00000297268.10	COL1A2	ENSG00000164692	collagen type I alpha 2 chain Source HGNC Symbol Acc HGNC 2198
C02	SBH0641340	ENST00000380518.8	COL2A1	ENSG00000139219	collagen type II alpha 1 chain Source HGNC Symbol Acc HGNC 2200
C03	SBH0521348	ENST00000304636.7	COL3A1	ENSG00000168542	collagen type III alpha 1 chain Source HGNC Symbol Acc HGNC 2201
C04	SBH0069214	ENST00000371817.7	COL5A1	ENSG00000130635	collagen type V alpha 1 chain Source HGNC Symbol Acc HGNC 2209
C05	SBH0264616	ENST00000425807.1	COMP	ENSG00000105664	cartilage oligomeric matrix protein Source HGNC Symbol Acc HGNC 2227
C06	SBH1219913	ENST00000420111.6	CSF1	ENSG00000184371	colony stimulating factor 1 Source HGNC Symbol Acc HGNC 2432
C07	SBH1219914	ENST00000296871.4	CSF2	ENSG00000164400	colony stimulating factor 2 Source HGNC Symbol Acc HGNC 2434
C08	SBH0378721	ENST00000225474.6	CSF3	ENSG00000108342	colony stimulating factor 3 Source HGNC Symbol Acc HGNC 2438
C09	SBH0609743	ENST00000443913.1	CTSK	ENSG00000143387	cathepsin K Source HGNC Symbol Acc HGNC 2536
C10	SBH0037184	ENST00000493764.1	DLX5	ENSG00000105880	distal-less homeobox 5 Source HGNC Symbol Acc HGNC 2918
		ENST00000265		ENSG00000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0321686	171.9	EGF	138798	epidermal growth factor Source HGNC Symbol Acc HGNC 3229
C12	SBH1219970	ENST00000454757.6	EGFR	ENSG00000146648	epidermal growth factor receptor Source HGNC Symbol Acc HGNC 3236
D01	SBH0534985	ENST00000612258.4	FGF1	ENSG00000113578	fibroblast growth factor 1 Source HGNC Symbol Acc HGNC 3665
D02	SBH1220000	ENST00000264498.7	FGF2	ENSG00000138685	fibroblast growth factor 2 Source HGNC Symbol Acc HGNC 3676
D03	SBH0226356	ENST00000326324.10	FGFR1	ENSG00000077782	fibroblast growth factor receptor 1 Source HGNC Symbol Acc HGNC 3688
D04	SBH0451647	ENST00000369059.5	FGFR2	ENSG00000066468	fibroblast growth factor receptor 2 Source HGNC Symbol Acc HGNC 3689
D05	SBH1220002	ENST00000282397.9	FLT1	ENSG00000102755	fms related tyrosine kinase 1 Source HGNC Symbol Acc HGNC 3763
D06	SBH1220003	ENST00000354785.9	FN1	ENSG00000115414	fibronectin 1 Source HGNC Symbol Acc HGNC 3778
D07	SBH0309229	ENST00000580279.2	GDF10	ENSG00000266524	growth differentiation factor 10 Source HGNC Symbol Acc HGNC 4215
D08	SBH0169622	ENST00000528467.1	GLI1	ENSG00000111087	GLI family zinc finger 1 Source HGNC Symbol Acc HGNC 4317
D09	SBH1220076	ENST00000264832.8	ICAM1	ENSG00000090339	intercellular adhesion molecule 1 Source HGNC Symbol Acc HGNC 5344
D10	SBH1220091	ENST00000337514.10	IGF1	ENSG00000017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
D11	SBH0201042	ENST00000650285.1	IGF1R	ENSG00000140443	insulin like growth factor 1 receptor Source HGNC Symbol Acc HGNC 5465
D12	SBH0264962	ENST00000418738.2	IGF2	ENSG00000167244	insulin like growth factor 2 Source HGNC Symbol Acc HGNC 5466
E01	SBH0302017	ENST00000295731.7	IHH	ENSG00000163501	Indian hedgehog signaling molecule Source HGNC Symbol Acc HGNC 5956
E02	SBH1220129	ENST00000282588.6	ITGA1	ENSG00000213949	integrin subunit alpha 1 Source HGNC Symbol Acc HGNC 6134
E03	SBH1220130	ENST00000296585.10	ITGA2	ENSG00000164171	integrin subunit alpha 2 Source HGNC Symbol Acc HGNC 6137
E04	SBH1220131	ENST00000007722.11	ITGA3	ENSG00000005884	integrin subunit alpha 3 Source HGNC Symbol Acc HGNC 6139
E05	SBH0245852	ENST00000287497.13	ITGAM	ENSG00000169896	integrin subunit alpha M Source HGNC Symbol Acc HGNC 6149
E06	SBH1220136	ENST00000302278.8	ITGB1	ENSG00000150093	integrin subunit beta 1 Source HGNC Symbol Acc HGNC 6153
E07	SBH1220216	ENST00000279441.9	MMP10	ENSG00000166670	matrix metallopeptidase 10 Source HGNC Symbol Acc HGNC 7156
E08	SBH1220222	ENST00000570308.5	MMP2	ENSG00000087245	matrix metallopeptidase 2 Source HGNC Symbol Acc HGNC 7166
E09	SBH1220225	ENST00000236826.8	MMP8	ENSG00000118113	matrix metallopeptidase 8 Source HGNC Symbol Acc HGNC 7175
E10	SBH0471278	ENST00000372330.3	MMP9	ENSG00000100985	matrix metallopeptidase 9 Source HGNC Symbol Acc HGNC 7176
E11	SBH1220264	ENST00000651197.1	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
E12	SBH0651509	ENST00000332822.4	NOG	ENSG00000183691	noggin Source HGNC Symbol Acc HGNC 7866
F01	SBH0498934	ENST00000354513.9	PDGFA	ENSG00000197461	platelet derived growth factor subunit A Source HGNC Symbol Acc HGNC 8799
F02	SBH0179927	ENST00000475778.1	PHEX	ENSG00000102174	phosphate regulating endopeptidase homolog X-linked Source HGNC Symbol Acc HGNC 8918
F03	SBH0662907	ENST00000465038.6	RUNX2	ENSG00000124813	runt related transcription factor 2 Source HGNC Symbol Acc HGNC 10472
F04	SBH0596911	ENST00000358171.7	SERPINH1	ENSG00000149257	serpin family H member 1 Source HGNC Symbol Acc HGNC 1546
F05	SBH1220404	ENST00000394092.6	SMAD1	ENSG00000170365	SMAD family member 1 Source HGNC Symbol Acc HGNC 6767
F06	SBH1220405	ENST00000262160.11	SMAD2	ENSG00000175387	SMAD family member 2 Source HGNC Symbol Acc HGNC 6768
F07	SBH0216540	ENST00000558428.5	SMAD3	ENSG00000166949	SMAD family member 3 Source HGNC Symbol Acc HGNC 6769
F08	SBH1220406	ENST00000588745.5	SMAD4	ENSG00000141646	SMAD family member 4 Source HGNC Symbol Acc HGNC 6770
F09	SBH1220407	ENST00000545279.6	SMAD5	ENSG00000113658	SMAD family member 5 Source HGNC Symbol Acc HGNC 6771
F10	SBH0112513	ENST00000245479.3	SOX9	ENSG00000125398	SRY-box 9 Source HGNC Symbol Acc HGNC 11204

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0639963	ENST00000547755.1	SP7	ENSG00000170374	Sp7 transcription factor Source NCBI gene Acc 121340
F12	SBH0180162	ENST00000237623.11	SPP1	ENSG00000118785	secreted phosphoprotein 1 Source HGNC Symbol Acc HGNC 11255
G01	SBH1220443	ENST00000598758.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G02	SBH1220444	ENST00000366930.9	TGFB2	ENSG00000092969	transforming growth factor beta 2 Source HGNC Symbol Acc HGNC 11768
G03	SBH0179529	ENST00000238682.7	TGFB3	ENSG00000119699	transforming growth factor beta 3 Source HGNC Symbol Acc HGNC 11769
G04	SBH1220446	ENST00000374994.9	TGFBR1	ENSG00000106799	transforming growth factor beta receptor 1 Source HGNC Symbol Acc HGNC 11772
G05	SBH0598842	ENST00000295754.9	TGFBR2	ENSG00000163513	transforming growth factor beta receptor 2 Source HGNC Symbol Acc HGNC 11773
G06	SBH1220471	ENST00000449264.3	TNF	ENSG00000232810	tumor necrosis factor Source HGNC Symbol Acc HGNC 11892
G07	SBH1220478	ENST00000239849.8	TNFSF11	ENSG00000120659	TNF superfamily member 11 Source HGNC Symbol Acc HGNC 11926
G08	SBH1220496	ENST00000242261.6	TWIST1	ENSG00000122691	twist family bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 12428
G09	SBH1220515	ENST00000294728.7	VCAM1	ENSG00000162692	vascular cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 12663
G10	SBH0641867	ENST00000546653.5	VDR	ENSG00000111424	vitamin D receptor Source HGNC Symbol Acc HGNC 12679
G11	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
G12	SBH0589017	ENST00000309422.6	VEGFB	ENSG00000173511	vascular endothelial growth factor B Source HGNC Symbol Acc HGNC 12681
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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