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

Human TGFb / BMP Signaling Pathway

Cat. no. 249950 SBHS-035ZR

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	ACVR1	ACVR2A	ACVRL1	AMH	AMHR2	ATF4	BAMBI	BGLAP	BMP1	BMP2	BMP3	BMP4
B	BMP5	BMP6	BMP7	BMPER	BMPR1A	BMPR1B	BMPR2	CDKN1A	CDKN1B	CDKN2B	CHRD	COL1A1
C	COL1A2	DCN	DLX2	EMP1	ENG	FOS	FST	GADD45B	GDF2	GDF3	GDF5	GDF6
D	GDF7	GSC	HERPUD1	HIPK2	ID1	ID2	IFRD1	IGF1	IGFBP3	IL6	INHA	INHBA
E	INHBB	JUN	JUNB	LEFTY1	LTBP1	LTBP2	MECOM	MYC	NODAL	NOG	PDGFB	PLAU
F	RUNX1	SERPINE1	SMAD1	SMAD2	SMAD3	SMAD4	SMAD5	SMAD7	SMURF1	SOX4	STAT1	TGFB1
G	TGFB1I1	TGFB2	TGFB3	TGFBI	TGFBR1	TGFBR2	TGFBR3	TGFBRAP1	TGIF1	THBS1	TNFSF10	TSC22D1
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	SBH1219722	ENST00000404590.1	ACVR2A	ENSG00000121989	activin A receptor type 2A Source HGNC Symbol Acc HGNC 173
A03	SBH0294610	ENST00000388922.8	ACVRL1	ENSG00000139567	activin A receptor like type 1 Source HGNC Symbol Acc HGNC 175
A04	SBH1219737	ENST00000221496.4	AMH	ENSG00000104899	anti-Mullerian hormone Source HGNC Symbol Acc HGNC 464
A05	SBH1219738	ENST00000550311.5	AMHR2	ENSG00000135409	anti-Mullerian hormone receptor type 2 Source HGNC Symbol Acc HGNC 465
A06	SBH1219754	ENST00000404241.6	ATF4	ENSG00000128272	activating transcription factor 4 Source HGNC Symbol Acc HGNC 786
A07	SBH1219781	ENST00000375533.6	BAMBI	ENSG00000095739	BMP and activin membrane bound inhibitor Source HGNC Symbol Acc HGNC 30251
A08	SBH1219793	ENST00000368272.5	BGLAP	ENSG00000242252	bone gamma-carboxyglutamate protein Source HGNC Symbol Acc HGNC 1043
A09	SBH1219801	ENST00000354870.5	BMP1	ENSG00000168487	bone morphogenetic protein 1 Source HGNC Symbol Acc HGNC 1067
A10	SBH1219802	ENST00000378827.5	BMP2	ENSG00000125845	bone morphogenetic protein 2 Source HGNC Symbol Acc HGNC 1069
A11	SBH1219803	ENST00000282701.3	BMP3	ENSG00000152785	bone morphogenetic protein 3 Source HGNC Symbol Acc HGNC 1070
A12	SBH0613995	ENST00000417573.5	BMP4	ENSG00000125378	bone morphogenetic protein 4 Source HGNC Symbol Acc HGNC 1071
B01	SBH1219804	ENST00000370830.4	BMP5	ENSG00000112175	bone morphogenetic protein 5 Source HGNC Symbol Acc HGNC 1072
B02	SBH1219805	ENST00000283147.7	BMP6	ENSG00000153162	bone morphogenetic protein 6 Source HGNC Symbol Acc HGNC 1073
B03	SBH1219806	ENST00000450594.6	BMP7	ENSG00000101144	bone morphogenetic protein 7 Source HGNC Symbol Acc HGNC 1074
B04	SBH0000527	ENST00000297161.6	BMPER	ENSG00000164619	BMP binding endothelial regulator Source HGNC Symbol Acc HGNC 24154
B05	SBH1219807	ENST00000372037.7	BMPR1A	ENSG00000107779	bone morphogenetic protein receptor type 1A Source HGNC Symbol Acc HGNC 1076
B06	SBH0153062	ENST00000515059.5	BMPR1B	ENSG00000138696	bone morphogenetic protein receptor type 1B Source HGNC Symbol Acc HGNC 1077
B07	SBH1219808	ENST00000638587.1	BMPR2	ENSG00000204217	bone morphogenetic protein receptor type 2 Source HGNC Symbol Acc HGNC 1078
B08	SBH0608500	ENST00000244741.9	CDKN1A	ENSG00000124762	cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784
B09	SBH1219879	ENST00000442489.1	CDKN1B	ENSG00000111276	cyclin dependent kinase inhibitor 1B Source HGNC Symbol Acc HGNC 1785
B10	SBH1219880	ENST00000276925.7	CDKN2B	ENSG00000147883	cyclin dependent kinase inhibitor 2B Source HGNC Symbol Acc HGNC 1788
B11	SBH0611378	ENST00000204604.5	CHRD	ENSG00000090539	chordin Source HGNC Symbol Acc HGNC 1949
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	SBH1219942	ENST00000420120.6	DCN	ENSG00000011465	decorin Source HGNC Symbol Acc HGNC 2705
C03	SBH1219955	ENST00000466293.2	DLX2	ENSG00000115844	distal-less homeobox 2 Source HGNC Symbol Acc HGNC 2915
C04	SBH1219974	ENST00000396301.7	EMP1	ENSG00000134531	epithelial membrane protein 1 Source HGNC Symbol Acc HGNC 3333
C05	SBH1219975	ENST00000480266.5	ENG	ENSG00000106991	endoglin Source HGNC Symbol Acc HGNC 3349
C06	SBH1220004	ENST00000554617.1	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796
C07	SBH0665825	ENST00000396947.7	FST	ENSG00000134363	follistatin Source HGNC Symbol Acc HGNC 3971
C08	SBH1220020	ENST00000587345.1	GADD45B	ENSG00000099860	growth arrest and DNA damage inducible beta Source HGNC Symbol Acc HGNC 4096
C09	SBH0659901	ENST00000581492.2	GDF2	ENSG00000263761	growth differentiation factor 2 Source HGNC Symbol Acc HGNC 4217
C10	SBH1220026	ENST00000329913.4	GDF3	ENSG00000184344	growth differentiation factor 3 Source HGNC Symbol Acc HGNC 4218
		ENST00000374		ENSG00000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH1220027	372.1	GDF5	125965	growth differentiation factor 5 Source HGNC Symbol Acc HGNC 4220
C12	SBH1220028	ENST00000287020.7	GDF6	ENSG00000156466	growth differentiation factor 6 Source HGNC Symbol Acc HGNC 4221
D01	SBH1220029	ENST00000272224.5	GDF7	ENSG00000143869	growth differentiation factor 7 Source HGNC Symbol Acc HGNC 4222
D02	SBH1220040	ENST00000238558.4	GSC	ENSG00000133937	goosecoid homeobox Source HGNC Symbol Acc HGNC 4612
D03	SBH1220053	ENST00000563343.5	HERPUD1	ENSG00000051108	homocysteine inducible ER protein with ubiquitin like domain 1 Source HGNC Symbol Acc HGNC 13744
D04	SBH1220061	ENST00000342645.7	HIPK2	ENSG00000064393	homeodomain interacting protein kinase 2 Source HGNC Symbol Acc HGNC 14402
D05	SBH1220077	ENST00000376112.4	ID1	ENSG00000125968	inhibitor of DNA binding 1, HLH protein Source HGNC Symbol Acc HGNC 5360
D06	SBH0320623	ENST00000234091.8	ID2	ENSG00000115738	inhibitor of DNA binding 2 Source HGNC Symbol Acc HGNC 5361
D07	SBH0304341	ENST00000535603.5	IFRD1	ENSG00000006652	interferon related developmental regulator 1 Source HGNC Symbol Acc HGNC 5456
D08	SBH1220091	ENST00000337514.10	IGF1	ENSG00000017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
D09	SBH1220092	ENST00000275521.10	IGFBP3	ENSG00000146674	insulin like growth factor binding protein 3 Source HGNC Symbol Acc HGNC 5472
D10	SBH1220111	ENST00000401630.7	IL6	ENSG00000136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
D11	SBH1220115	ENST00000243786.3	INHA	ENSG00000123999	inhibin subunit alpha Source HGNC Symbol Acc HGNC 6065
D12	SBH1220116	ENST00000242208.5	INHBA	ENSG00000122641	inhibin subunit beta A Source HGNC Symbol Acc HGNC 6066
E01	SBH1220117	ENST00000295228.4	INHBB	ENSG00000163083	inhibin subunit beta B Source HGNC Symbol Acc HGNC 6067
E02	SBH0613340	ENST00000371222.3	JUN	ENSG00000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
E03	SBH1220143	ENST00000302754.6	JUNB	ENSG00000171223	JunB proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6205
E04	SBH1220168	ENST00000272134.5	LEFTY1	ENSG00000243709	left-right determination factor 1 Source HGNC Symbol Acc HGNC 6552
E05	SBH1220179	ENST00000407925.5	LTBP1	ENSG00000049323	latent transforming growth factor beta binding protein 1 Source HGNC Symbol Acc HGNC 6714
E06	SBH1220180	ENST00000556690.5	LTBP2	ENSG00000119681	latent transforming growth factor beta binding protein 2 Source HGNC Symbol Acc HGNC 6715
E07	SBH1220208	ENST00000651503.1	MECOM	ENSG00000085276	MDS1 and EVI1 complex locus Source HGNC Symbol Acc HGNC 3498
E08	SBH0426145	ENST00000524013.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
E09	SBH0463463	ENST00000287139.7	NODAL	ENSG00000156574	nodal growth differentiation factor Source HGNC Symbol Acc HGNC 7865
E10	SBH0651509	ENST00000332822.4	NOG	ENSG00000183691	noggin Source HGNC Symbol Acc HGNC 7866
E11	SBH0091370	ENST00000331163.10	PDGFB	ENSG00000100311	platelet derived growth factor subunit B Source HGNC Symbol Acc HGNC 8800
E12	SBH1220315	ENST00000446342.5	PLAU	ENSG00000122861	plasminogen activator, urokinase Source HGNC Symbol Acc HGNC 9052
F01	SBH0384721	ENST00000437180.5	RUNX1	ENSG00000159216	runt related transcription factor 1 Source HGNC Symbol Acc HGNC 10471
F02	SBH1220389	ENST00000223095.4	SERPINE1	ENSG00000106366	serpin family E member 1 Source HGNC Symbol Acc HGNC 8583
F03	SBH1220404	ENST00000394092.6	SMAD1	ENSG00000170365	SMAD family member 1 Source HGNC Symbol Acc HGNC 6767
F04	SBH1220405	ENST00000262160.11	SMAD2	ENSG00000175387	SMAD family member 2 Source HGNC Symbol Acc HGNC 6768
F05	SBH0216540	ENST00000558428.5	SMAD3	ENSG00000166949	SMAD family member 3 Source HGNC Symbol Acc HGNC 6769
F06	SBH1220406	ENST00000588745.5	SMAD4	ENSG00000141646	SMAD family member 4 Source HGNC Symbol Acc HGNC 6770
F07	SBH1220407	ENST00000545279.6	SMAD5	ENSG00000113658	SMAD family member 5 Source HGNC Symbol Acc HGNC 6771
F08	SBH0167278	ENST00000262158.7	SMAD7	ENSG00000101665	SMAD family member 7 Source HGNC Symbol Acc HGNC 6773
F09	SBH0364195	ENST00000361125.1	SMURF1	ENSG00000198742	SMAD specific E3 ubiquitin protein ligase 1 Source HGNC Symbol Acc HGNC 16807
F10	SBH1220418	ENST00000244745.3	SOX4	ENSG00000124766	SRY-box 4 Source HGNC Symbol Acc HGNC 11200

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	SBH1220443	ENST00000598758.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G01	SBH0021613	ENST00000394863.8	TGFB1I1	ENSG00000140682	transforming growth factor beta 1 induced transcript 1 Source HGNC Symbol Acc HGNC 11767
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	SBH1220445	ENST00000442011.7	TGFBI	ENSG00000120708	transforming growth factor beta induced Source HGNC Symbol Acc HGNC 11771
G05	SBH1220446	ENST00000374994.9	TGFBR1	ENSG00000106799	transforming growth factor beta receptor 1 Source HGNC Symbol Acc HGNC 11772
G06	SBH0598842	ENST00000295754.9	TGFBR2	ENSG00000163513	transforming growth factor beta receptor 2 Source HGNC Symbol Acc HGNC 11773
G07	SBH1220447	ENST00000370399.6	TGFBR3	ENSG00000069702	transforming growth factor beta receptor 3 Source HGNC Symbol Acc HGNC 11774
G08	SBH1220448	ENST00000258449.2	TGFBRAP1	ENSG00000135966	transforming growth factor beta receptor associated protein 1 Source HGNC Symbol Acc HGNC 16836
G09	SBH0261061	ENST00000343820.9	TGIF1	ENSG00000177426	TGFB induced factor homeobox 1 Source HGNC Symbol Acc HGNC 11776
G10	SBH1220450	ENST00000260356.5	THBS1	ENSG00000137801	thrombospondin 1 Source HGNC Symbol Acc HGNC 11785
G11	SBH1220477	ENST00000241261.7	TNFSF10	ENSG00000121858	TNF superfamily member 10 Source HGNC Symbol Acc HGNC 11925
G12	SBH0404111	ENST00000261489.6	TSC22D1	ENSG00000102804	TSC22 domain family member 1 Source HGNC Symbol Acc HGNC 16826
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.

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.