

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

## Human WNT Signaling Targets

Cat. no. 249950 SBHS-243ZR

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	ABCB1	AHR	ANGPTL4	ANTXR1	AXIN2	BGLAP	BIRC5	BMP4	BTRC	CACNA2D3	CCND1	CCND2
B	CD44	CDH1	CDKN2A	CDON	CEBPD	CCN2	CUBN	DAB2	DKK1	DLK1	DPP10	EFNB1
C	EGFR	EGR1	ETS2	FGF20	FGF4	FGF7	FGF9	FN1	FOSL1	FST	FZD7	GDF5
D	GDNF	GJA1	ID2	IGF1	IGF2	IL6	IRS1	JAG1	KLF5	LEF1	LRP1	MET
E	MMP2	MMP7	MMP9	MYC	NANOG	NRCAM	NRP1	NTRK2	PDGFRA	PITX2	PLAUR	POU5F1
F	PLPP3	PPARD	PTCH1	PTGS2	RUNX2	SFRP2	SIX1	SMO	SOX2	SOX9	TBXT	TCF4
G	TCF7	TCF7L1	TCF7L2	TGFB3	TLE1	TWIST1	VEGFA	CCN4	CCN5	WNT3A	WNT5A	WNT9A
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	SBH0346091	ENST00000622132.4	ABCB1	ENSG00000085563	ATP binding cassette subfamily B member 1 Source HGNC Symbol Acc HGNC 40
A02	SBH0503529	ENST00000492120.1	AHR	ENSG00000106546	aryl hydrocarbon receptor Source HGNC Symbol Acc HGNC 348
A03	SBH0321217	ENST00000393962.6	ANGPTL4	ENSG00000167772	angiopoietin like 4 Source HGNC Symbol Acc HGNC 16039
A04	SBH0194758	ENST00000497197.3	ANTXR1	ENSG00000169604	ANTXR cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 21014
A05	SBH0541946	ENST00000578251.1	AXIN2	ENSG00000168646	axin 2 Source HGNC Symbol Acc HGNC 904
A06	SBH1219793	ENST00000368272.5	BGLAP	ENSG00000242252	bone gamma-carboxyglutamate protein Source HGNC Symbol Acc HGNC 1043
A07	SBH1219797	ENST00000301633.8	BIRC5	ENSG00000089685	baculoviral IAP repeat containing 5 Source HGNC Symbol Acc HGNC 593
A08	SBH0613995	ENST00000417573.5	BMP4	ENSG00000125378	bone morphogenetic protein 4 Source HGNC Symbol Acc HGNC 1071
A09	SBH1219819	ENST00000393441.8	BTRC	ENSG00000166167	beta-transducin repeat containing E3 ubiquitin protein ligase Source HGNC Symbol Acc HGNC 1144
A10	SBH0267982	ENST00000468658.1	CACNA2D3	ENSG00000157445	calcium voltage-gated channel auxiliary subunit alpha2delta 3 Source HGNC Symbol Acc HGNC 15460
A11	SBH0434090	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
A12	SBH1219845	ENST00000261254.8	CCND2	ENSG00000118971	cyclin D2 Source HGNC Symbol Acc HGNC 1583
B01	SBH0074994	ENST00000428726.7	CD44	ENSG00000226508	CD44 molecule (Indian blood group) Source HGNC Symbol Acc HGNC 1681
B02	SBH1219869	ENST00000261769.10	CDH1	ENSG00000039068	cadherin 1 Source HGNC Symbol Acc HGNC 1748
B03	SBH0349548	ENST00000304494.9	CDKN2A	ENSG00000147889	cyclin dependent kinase inhibitor 2A Source HGNC Symbol Acc HGNC 1787
B04	SBH0172539	ENST00000527967.5	CDON	ENSG00000064309	cell adhesion associated, oncogene regulated Source HGNC Symbol Acc HGNC 17104
B05	SBH0227697	ENST00000408965.3	CEBPD	ENSG00000221869	CCAAT enhancer binding protein delta Source HGNC Symbol Acc HGNC 1835
B06	SBH1219917	ENST00000367976.4	CCN2	ENSG00000118523	cellular communication network factor 2 Source HGNC Symbol Acc HGNC 2500
B07	SBH0174779	ENST00000438254.1	CUBN	ENSG00000107611	cubilin Source HGNC Symbol Acc HGNC 2548
B08	SBH1219940	ENST00000545653.5	DAB2	ENSG00000153071	DAB2, clathrin adaptor protein Source HGNC Symbol Acc HGNC 2662
B09	SBH0194476	ENST00000373970.4	DKK1	ENSG00000107984	dickkopf WNT signaling pathway inhibitor 1 Source HGNC Symbol Acc HGNC 2891
B10	SBH0520266	ENST00000650464.1	DLK1	ENSG00000185559	delta like non-canonical Notch ligand 1 Source HGNC Symbol Acc HGNC 2907
B11	SBH0294547	ENST00000486885.5	DPP10	ENSG00000175497	dipeptidyl peptidase like 10 Source HGNC Symbol Acc HGNC 20823
B12	SBH0537762	ENST00000204961.5	EFNB1	ENSG00000090776	ephrin B1 Source HGNC Symbol Acc HGNC 3226
C01	SBH1219970	ENST00000454757.6	EGFR	ENSG00000146648	epidermal growth factor receptor Source HGNC Symbol Acc HGNC 3236
C02	SBH0290504	ENST00000239938.5	EGR1	ENSG00000120738	early growth response 1 Source HGNC Symbol Acc HGNC 3238
C03	SBH1219986	ENST00000432278.5	ETS2	ENSG00000157557	ETS proto-oncogene 2, transcription factor Source HGNC Symbol Acc HGNC 3489
C04	SBH0645807	ENST00000180166.6	FGF20	ENSG00000078579	fibroblast growth factor 20 Source HGNC Symbol Acc HGNC 3677
C05	SBH0110848	ENST00000168712.3	FGF4	ENSG00000075388	fibroblast growth factor 4 Source HGNC Symbol Acc HGNC 3682
C06	SBH0051743	ENST00000560979.1	FGF7	ENSG00000140285	fibroblast growth factor 7 Source HGNC Symbol Acc HGNC 3685
C07	SBH0087968	ENST00000461657.1	FGF9	ENSG00000102678	fibroblast growth factor 9 Source HGNC Symbol Acc HGNC 3687
C08	SBH1220003	ENST00000354785.9	FN1	ENSG00000115414	fibronectin 1 Source HGNC Symbol Acc HGNC 3778
C09	SBH1220005	ENST00000532401.1	FOSL1	ENSG00000175592	FOS like 1, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 13718
C10	SBH0665825	ENST00000396947.7	FST	ENSG00000134363	follicle-stimulating hormone receptor Source HGNC Symbol Acc HGNC 3971
		ENST00000286		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0357958	201.2	FZD7	155760	frizzled class receptor 7 Source HGNC Symbol Acc HGNC 4045
C12	SBH1220027	ENST00000374372.1	GDF5	ENSG00000125965	growth differentiation factor 5 Source HGNC Symbol Acc HGNC 4220
D01	SBH0310916	ENST00000502572.1	GDNF	ENSG00000168621	glial cell derived neurotrophic factor Source HGNC Symbol Acc HGNC 4232
D02	SBH0022905	ENST00000282561.4	GJA1	ENSG00000152661	gap junction protein alpha 1 Source HGNC Symbol Acc HGNC 4274
D03	SBH0320623	ENST00000234091.8	ID2	ENSG00000115738	inhibitor of DNA binding 2 Source HGNC Symbol Acc HGNC 5361
D04	SBH1220091	ENST00000337514.10	IGF1	ENSG00000017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
D05	SBH0264962	ENST00000418738.2	IGF2	ENSG00000167244	insulin like growth factor 2 Source HGNC Symbol Acc HGNC 5466
D06	SBH1220111	ENST00000401630.7	IL6	ENSG00000136244	interleukin 6 Source HGNC Symbol Acc HGNC 6018
D07	SBH0130188	ENST00000305123.5	IRS1	ENSG00000169047	insulin receptor substrate 1 Source HGNC Symbol Acc HGNC 6125
D08	SBH0407654	ENST00000254958.10	JAG1	ENSG00000101384	jagged 1 Source HGNC Symbol Acc HGNC 6188
D09	SBH0594449	ENST00000377687.6	KLF5	ENSG00000102554	Kruppel like factor 5 Source HGNC Symbol Acc HGNC 6349
D10	SBH1220167	ENST00000265165.6	LEF1	ENSG00000138795	lymphoid enhancer binding factor 1 Source HGNC Symbol Acc HGNC 6551
D11	SBH0296428	ENST00000243077.7	LRP1	ENSG00000123384	LDL receptor related protein 1 Source HGNC Symbol Acc HGNC 6692
D12	SBH1220210	ENST00000318493.11	MET	ENSG00000105976	MET proto-oncogene, receptor tyrosine kinase Source HGNC Symbol Acc HGNC 7029
E01	SBH1220222	ENST00000570308.5	MMP2	ENSG00000087245	matrix metalloproteinase 2 Source HGNC Symbol Acc HGNC 7166
E02	SBH1220224	ENST00000260227.5	MMP7	ENSG00000137673	matrix metalloproteinase 7 Source HGNC Symbol Acc HGNC 7174
E03	SBH0471278	ENST00000372330.3	MMP9	ENSG00000100985	matrix metalloproteinase 9 Source HGNC Symbol Acc HGNC 7176
E04	SBH0426145	ENST00000524013.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
E05	SBH1225384	ENST00000229307.9	NANOG	ENSG00000111704	Nanog homeobox Source HGNC Symbol Acc HGNC 20857
E06	SBH0603284	ENST00000413765.6	NRCAM	ENSG00000091129	neuronal cell adhesion molecule Source HGNC Symbol Acc HGNC 7994
E07	SBH1220281	ENST00000374823.9	NRP1	ENSG00000099250	neuropilin 1 Source HGNC Symbol Acc HGNC 8004
E08	SBH0629742	ENST00000277120.7	NTRK2	ENSG00000148053	neurotrophic receptor tyrosine kinase 2 Source HGNC Symbol Acc HGNC 8032
E09	SBH1220292	ENST00000257290.10	PDGFRA	ENSG00000134853	platelet derived growth factor receptor alpha Source HGNC Symbol Acc HGNC 8803
E10	SBH0008517	ENST00000306732.8	PITX2	ENSG00000164093	paired like homeodomain 2 Source HGNC Symbol Acc HGNC 9005
E11	SBH0270684	ENST00000593939.5	PLAUR	ENSG00000011422	plasminogen activator, urokinase receptor Source HGNC Symbol Acc HGNC 9053
E12	SBH1225387	ENST00000513407.1	POU5F1	ENSG00000204531	POU class 5 homeobox 1 Source HGNC Symbol Acc HGNC 9221
F01	SBH0131913	ENST00000371250.4	PLPP3	ENSG00000162407	phospholipid phosphatase 3 Source HGNC Symbol Acc HGNC 9229
F02	SBH1220323	ENST00000418635.6	PPARD	ENSG00000112033	peroxisome proliferator activated receptor delta Source HGNC Symbol Acc HGNC 9235
F03	SBH0360047	ENST00000331920.10	PTCH1	ENSG00000185920	patched 1 Source HGNC Symbol Acc HGNC 9585
F04	SBH1220344	ENST00000367468.10	PTGS2	ENSG00000073756	prostaglandin-endoperoxide synthase 2 Source HGNC Symbol Acc HGNC 9605
F05	SBH0662907	ENST00000465038.6	RUNX2	ENSG00000124813	runt related transcription factor 2 Source HGNC Symbol Acc HGNC 10472
F06	SBH0113874	ENST00000274063.5	SFRP2	ENSG00000145423	secreted frizzled related protein 2 Source HGNC Symbol Acc HGNC 10777
F07	SBH0045138	ENST00000645694.2	SIX1	ENSG00000126778	SIX homeobox 1 Source HGNC Symbol Acc HGNC 10887
F08	SBH0217804	ENST00000462420.2	SMO	ENSG00000128602	smoothed, frizzled class receptor Source HGNC Symbol Acc HGNC 11119
F09	SBH0499815	ENST00000325404.3	SOX2	ENSG00000181449	SRY-box 2 Source HGNC Symbol Acc HGNC 11195
F10	SBH0112513	ENST00000245479.3	SOX9	ENSG00000125398	SRY-box 9 Source HGNC Symbol Acc HGNC 11204

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0142967	ENST00000366871.7	TBXT	ENSG00000164458	T-box transcription factor T Source HGNC Symbol Acc HGNC 11515
F12	SBH0089633	ENST00000356073.8	TCF4	ENSG00000196628	transcription factor 4 Source HGNC Symbol Acc HGNC 11634
G01	SBH0438163	ENST00000517851.5	TCF7	ENSG00000081059	transcription factor 7 Source HGNC Symbol Acc HGNC 11639
G02	SBH1220436	ENST00000282111.4	TCF7L1	ENSG00000152284	transcription factor 7 like 1 Source HGNC Symbol Acc HGNC 11640
G03	SBH0385754	ENST00000355717.9	TCF7L2	ENSG00000148737	transcription factor 7 like 2 Source HGNC Symbol Acc HGNC 11641
G04	SBH0179529	ENST00000238682.7	TGFB3	ENSG00000119699	transforming growth factor beta 3 Source HGNC Symbol Acc HGNC 11769
G05	SBH1220459	ENST00000376499.8	TLE1	ENSG00000196781	TLE family member 1, transcriptional corepressor Source HGNC Symbol Acc HGNC 11837
G06	SBH1220496	ENST00000242261.6	TWIST1	ENSG00000122691	twist family bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 12428
G07	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
G08	SBH1220526	ENST00000220856.6	CCN4	ENSG00000104415	cellular communication network factor 4 Source HGNC Symbol Acc HGNC 12769
G09	SBH0641750	ENST00000471629.1	CCN5	ENSG00000064205	cellular communication network factor 5 Source HGNC Symbol Acc HGNC 12770
G10	SBH1220532	ENST00000284523.2	WNT3A	ENSG00000154342	Wnt family member 3A Source HGNC Symbol Acc HGNC 15983
G11	SBH0548767	ENST00000264634.8	WNT5A	ENSG00000114251	Wnt family member 5A Source HGNC Symbol Acc HGNC 12784
G12	SBH1220538	ENST00000272164.6	WNT9A	ENSG00000143816	Wnt family member 9A Source HGNC Symbol Acc HGNC 12778
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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