

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

## Human WNT Signaling Pathway

Cat. no. 249950 SBHS-043ZR

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	AES	APC	AXIN1	AXIN2	BCL9	BTRC	CCND1	CCND2	CSNK1A1	CSNK2A1	CTBP1	CTNNB1
B	CTNNBIP1	CXCC4	DAAM1	DAB2	DIXDC1	DKK1	DKK3	DVL1	DVL2	EP300	FBXW11	FBXW4
C	FGF4	FOSL1	FOXN1	FRAT1	FRZB	FZD1	FZD2	FZD3	FZD4	FZD5	FZD6	FZD7
D	FZD8	FZD9	GSK3A	GSK3B	JUN	KREMEN1	LEF1	LRP5	LRP6	MAPK8	MMP7	MYC
E	NFATC1	NKD1	NLK	PITX2	PORCN	PPARD	PRICKLE1	PYGO1	RHOA	RHOU	RUVBL1	SFRP1
F	SFRP4	SOX17	TCF7	TCF7L1	TLE1	VANGL2	WIF1	CCN4	WNT1	WNT10A	WNT11	WNT16
G	WNT2	WNT2B	WNT3	WNT3A	WNT4	WNT5A	WNT5B	WNT6	WNT7A	WNT7B	WNT8A	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	SBH0216423	ENST00000221561.12	AES	ENSG00000104964	amino-terminal enhancer of split Source HGNC Symbol Acc HGNC 307
A02	SBH1219746	ENST00000512211.6	APC	ENSG00000134982	APC, WNT signaling pathway regulator Source HGNC Symbol Acc HGNC 583
A03	SBH1219777	ENST00000262320.8	AXIN1	ENSG00000103126	axin 1 Source HGNC Symbol Acc HGNC 903
A04	SBH0541946	ENST00000578251.1	AXIN2	ENSG00000168646	axin 2 Source HGNC Symbol Acc HGNC 904
A05	SBH1219791	ENST00000234739.8	BCL9	ENSG00000116128	BCL9, transcription coactivator Source HGNC Symbol Acc HGNC 1008
A06	SBH1219819	ENST00000393441.8	BTRC	ENSG00000166167	beta-transducin repeat containing E3 ubiquitin protein ligase Source HGNC Symbol Acc HGNC 1144
A07	SBH0434090	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
A08	SBH1219845	ENST00000261254.8	CCND2	ENSG00000118971	cyclin D2 Source HGNC Symbol Acc HGNC 1583
A09	SBH0331395	ENST00000377843.6	CSNK1A1	ENSG00000113712	casein kinase 1 alpha 1 Source HGNC Symbol Acc HGNC 2451
A10	SBH1219915	ENST00000645187.1	CSNK2A1	ENSG00000101266	casein kinase 2 alpha 1 Source HGNC Symbol Acc HGNC 2457
A11	SBH0133926	ENST00000290921.10	CTBP1	ENSG00000159692	C-terminal binding protein 1 Source HGNC Symbol Acc HGNC 2494
A12	SBH0588482	ENST00000396183.7	CTNNB1	ENSG00000168036	catenin beta 1 Source HGNC Symbol Acc HGNC 2514
B01	SBH1219919	ENST00000377263.6	CTNNBIP1	ENSG00000178585	catenin beta interacting protein 1 Source HGNC Symbol Acc HGNC 16913
B02	SBH0257111	ENST00000466963.1	CXXC4	ENSG00000168772	CXXC finger protein 4 Source HGNC Symbol Acc HGNC 24593
B03	SBH1219939	ENST00000360909.7	DAAM1	ENSG00000100592	dishevelled associated activator of morphogenesis 1 Source HGNC Symbol Acc HGNC 18142
B04	SBH1219940	ENST00000545653.5	DAB2	ENSG00000153071	DAB2, clathrin adaptor protein Source HGNC Symbol Acc HGNC 2662
B05	SBH1219950	ENST00000440460.6	DIXDC1	ENSG00000150764	DIX domain containing 1 Source HGNC Symbol Acc HGNC 23695
B06	SBH0194476	ENST00000373970.4	DKK1	ENSG00000107984	dickkopf WNT signaling pathway inhibitor 1 Source HGNC Symbol Acc HGNC 2891
B07	SBH0032244	ENST00000396505.6	DKK3	ENSG000001050165	dickkopf WNT signaling pathway inhibitor 3 Source HGNC Symbol Acc HGNC 2893
B08	SBH0623008	ENST00000378891.9	DVL1	ENSG00000107404	dishevelled segment polarity protein 1 Source HGNC Symbol Acc HGNC 3084
B09	SBH1219963	ENST00000005340.10	DVL2	ENSG000001004975	dishevelled segment polarity protein 2 Source HGNC Symbol Acc HGNC 3086
B10	SBH1219977	ENST00000263253.9	EP300	ENSG00000100393	E1A binding protein p300 Source HGNC Symbol Acc HGNC 3373
B11	SBH1219997	ENST00000265094.9	FBXW11	ENSG000001072803	F-box and WD repeat domain containing 11 Source HGNC Symbol Acc HGNC 13607
B12	SBH1219998	ENST00000331272.8	FBXW4	ENSG00000107829	F-box and WD repeat domain containing 4 Source HGNC Symbol Acc HGNC 10847
C01	SBH0110848	ENST00000168712.3	FGF4	ENSG000001075388	fibroblast growth factor 4 Source HGNC Symbol Acc HGNC 3682
C02	SBH1220005	ENST00000532401.1	FOSL1	ENSG00000175592	FOS like 1, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 13718
C03	SBH1220007	ENST00000226247.2	FOXN1	ENSG00000109101	forkhead box N1 Source HGNC Symbol Acc HGNC 12765
C04	SBH1220008	ENST00000371021.4	FRAT1	ENSG00000165879	FRAT1, WNT signaling pathway regulator Source HGNC Symbol Acc HGNC 3944
C05	SBH1220009	ENST00000295113.5	FRZB	ENSG00000162998	frizzled related protein Source HGNC Symbol Acc HGNC 3959
C06	SBH0084545	ENST00000287934.3	FZD1	ENSG00000157240	frizzled class receptor 1 Source HGNC Symbol Acc HGNC 4038
C07	SBH0574916	ENST00000315323.4	FZD2	ENSG00000180340	frizzled class receptor 2 Source HGNC Symbol Acc HGNC 4040
C08	SBH1220011	ENST00000240093.8	FZD3	ENSG00000104290	frizzled class receptor 3 Source HGNC Symbol Acc HGNC 4041
C09	SBH1220012	ENST00000531380.2	FZD4	ENSG00000174804	frizzled class receptor 4 Source HGNC Symbol Acc HGNC 4042
C10	SBH1220013	ENST00000295417.4	FZD5	ENSG00000163251	frizzled class receptor 5 Source HGNC Symbol Acc HGNC 4043
		ENST00000522		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH1220014	566.5	FZD6	164930	frizzled class receptor 6 Source HGNC Symbol Acc HGNC 4044
C12	SBH0357958	ENST00000286201.2	FZD7	ENSG00000155760	frizzled class receptor 7 Source HGNC Symbol Acc HGNC 4045
D01	SBH0414193	ENST00000374694.2	FZD8	ENSG00000177283	frizzled class receptor 8 Source HGNC Symbol Acc HGNC 4046
D02	SBH0166208	ENST00000344575.4	FZD9	ENSG00000188763	frizzled class receptor 9 Source HGNC Symbol Acc HGNC 4047
D03	SBH1220041	ENST00000222330.8	GSK3A	ENSG00000105723	glycogen synthase kinase 3 alpha Source HGNC Symbol Acc HGNC 4616
D04	SBH0579883	ENST00000316626.5	GSK3B	ENSG00000082701	glycogen synthase kinase 3 beta Source HGNC Symbol Acc HGNC 4617
D05	SBH0613340	ENST00000371222.3	JUN	ENSG00000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
D06	SBH1220157	ENST00000327813.9	KREMEN1	ENSG00000183762	kringle containing transmembrane protein 1 Source HGNC Symbol Acc HGNC 17550
D07	SBH1220167	ENST00000265165.6	LEF1	ENSG00000138795	lymphoid enhancer binding factor 1 Source HGNC Symbol Acc HGNC 6551
D08	SBH1220177	ENST00000294304.12	LRP5	ENSG00000162337	LDL receptor related protein 5 Source HGNC Symbol Acc HGNC 6697
D09	SBH1220178	ENST00000261349.9	LRP6	ENSG00000070018	LDL receptor related protein 6 Source HGNC Symbol Acc HGNC 6698
D10	SBH0294318	ENST00000395611.7	MAPK8	ENSG00000107643	mitogen-activated protein kinase 8 Source HGNC Symbol Acc HGNC 6881
D11	SBH1220224	ENST00000260227.5	MMP7	ENSG00000137673	matrix metalloproteinase 7 Source HGNC Symbol Acc HGNC 7174
D12	SBH0426145	ENST00000524013.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
E01	SBH0171265	ENST00000591814.5	NFATC1	ENSG00000131196	nuclear factor of activated T cells 1 Source HGNC Symbol Acc HGNC 7775
E02	SBH1220268	ENST00000268459.6	NKD1	ENSG00000140807	NKD1, WNT signaling pathway inhibitor Source HGNC Symbol Acc HGNC 17045
E03	SBH1220269	ENST00000407008.8	NLK	ENSG00000087095	nemo like kinase Source HGNC Symbol Acc HGNC 29858
E04	SBH0008517	ENST00000306732.8	PITX2	ENSG00000164093	paired like homeodomain 2 Source HGNC Symbol Acc HGNC 9005
E05	SBH0406895	ENST00000361988.7	PORCN	ENSG00000102312	porcupine O-acyltransferase Source HGNC Symbol Acc HGNC 17652
E06	SBH1220323	ENST00000418635.6	PPARD	ENSG00000112033	peroxisome proliferator activated receptor delta Source HGNC Symbol Acc HGNC 9235
E07	SBH0256017	ENST00000639958.1	PRICKLE1	ENSG00000139174	prickle planar cell polarity protein 1 Source HGNC Symbol Acc HGNC 17019
E08	SBH1220351	ENST00000302000.10	PYGO1	ENSG00000171016	pygopus family PHD finger 1 Source HGNC Symbol Acc HGNC 30256
E09	SBH1220367	ENST00000418115.6	RHOA	ENSG00000067560	ras homolog family member A Source HGNC Symbol Acc HGNC 667
E10	SBH1220368	ENST00000366691.4	RHOU	ENSG00000116574	ras homolog family member U Source HGNC Symbol Acc HGNC 17794
E11	SBH0488299	ENST00000322623.9	RUVBL1	ENSG00000175792	RuvB like AAA ATPase 1 Source HGNC Symbol Acc HGNC 10474
E12	SBH1220394	ENST00000220772.8	SFRP1	ENSG00000104332	secreted frizzled related protein 1 Source HGNC Symbol Acc HGNC 10776
F01	SBH1220395	ENST00000436072.7	SFRP4	ENSG00000106483	secreted frizzled related protein 4 Source HGNC Symbol Acc HGNC 10778
F02	SBH1220417	ENST00000297316.5	SOX17	ENSG00000164736	SRY-box 17 Source HGNC Symbol Acc HGNC 18122
F03	SBH0438163	ENST00000517851.5	TCF7	ENSG00000081059	transcription factor 7 Source HGNC Symbol Acc HGNC 11639
F04	SBH1220436	ENST00000282111.4	TCF7L1	ENSG00000152284	transcription factor 7 like 1 Source HGNC Symbol Acc HGNC 11640
F05	SBH1220459	ENST00000376499.8	TLE1	ENSG00000196781	TLE family member 1, transcriptional corepressor Source HGNC Symbol Acc HGNC 11837
F06	SBH1220514	ENST00000368061.3	VANGL2	ENSG00000162738	VANGL planar cell polarity protein 2 Source HGNC Symbol Acc HGNC 15511
F07	SBH1220525	ENST00000286574.9	WIF1	ENSG00000156076	WNT inhibitory factor 1 Source HGNC Symbol Acc HGNC 18081
F08	SBH1220526	ENST00000220856.6	CCN4	ENSG00000104415	cellular communication network factor 4 Source HGNC Symbol Acc HGNC 12769
F09	SBH0160221	ENST00000293549.3	WNT1	ENSG00000125084	Wnt family member 1 Source HGNC Symbol Acc HGNC 12774
F10	SBH1220527	ENST00000258411.8	WNT10A	ENSG00000135925	Wnt family member 10A Source HGNC Symbol Acc HGNC 13829

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220528	ENST00000322563.8	WNT11	ENSG00000085741	Wnt family member 11 Source HGNC Symbol Acc HGNC 12776
F12	SBH1220529	ENST00000361301.6	WNT16	ENSG00000002745	Wnt family member 16 Source HGNC Symbol Acc HGNC 16267
G01	SBH0301163	ENST00000265441.7	WNT2	ENSG00000105989	Wnt family member 2 Source HGNC Symbol Acc HGNC 12780
G02	SBH1220530	ENST00000369686.9	WNT2B	ENSG00000134245	Wnt family member 2B Source HGNC Symbol Acc HGNC 12781
G03	SBH1220531	ENST00000225512.6	WNT3	ENSG00000108379	Wnt family member 3 Source HGNC Symbol Acc HGNC 12782
G04	SBH1220532	ENST00000284523.2	WNT3A	ENSG00000154342	Wnt family member 3A Source HGNC Symbol Acc HGNC 15983
G05	SBH1220533	ENST00000290167.11	WNT4	ENSG00000162552	Wnt family member 4 Source HGNC Symbol Acc HGNC 12783
G06	SBH0548767	ENST00000264634.8	WNT5A	ENSG00000114251	Wnt family member 5A Source HGNC Symbol Acc HGNC 12784
G07	SBH1220534	ENST00000397196.7	WNT5B	ENSG00000111186	Wnt family member 5B Source HGNC Symbol Acc HGNC 16265
G08	SBH1220535	ENST00000233948.4	WNT6	ENSG00000115596	Wnt family member 6 Source HGNC Symbol Acc HGNC 12785
G09	SBH1220536	ENST00000285018.4	WNT7A	ENSG00000154764	Wnt family member 7A Source HGNC Symbol Acc HGNC 12786
G10	SBH1220537	ENST00000339464.9	WNT7B	ENSG00000188064	Wnt family member 7B Source HGNC Symbol Acc HGNC 12787
G11	SBH0198667	ENST00000398754.1	WNT8A	ENSG00000061492	Wnt family member 8A Source HGNC Symbol Acc HGNC 12788
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.

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](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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