

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

## Human Stem Cell Signaling

Cat. no. 249955 UPHS-047ZR

For study focus gene expression analysis

### Shipping and storage

QuantiNova LNA Probe PCR Focus Panels are shipped at room temperature. Immediately upon receipt, they should be stored protected from light 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 Probe PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova Probe PCR Kit (Mastermix) for PCR.

### Panel layout (Rotor-Gene): QuantiNova LNA Probe 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 Probe PCR 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	ACVR1	ACVR1B	ACVR1C	ACVR2A	ACVR2B	ACVRL1	AMHR2	BCL9	BCL9L	BMPR1A	BMPR1B	BMPR2
B	CDX2	CREBBP	CTNNB1	E2F5	ENG	EP300	FGFR1	FGFR2	FGFR3	FGFR4	FZD1	FZD2
C	FZD3	FZD4	FZD5	FZD6	FZD7	FZD8	FZD9	GLI1	GLI2	GLI3	IL6ST	LEF1
D	LIFR	LRP5	LRP6	LTBP1	LTBP2	LTBP3	LTBP4	NCSTN	NFAT5	NFATC1	NFATC2	NFATC3
E	NFATC4	NOTCH1	NOTCH2	NOTCH3	NOTCH4	PSEN1	PSEN2	PSENE1	PTCH1	DISP3	PYGO2	RBL1
F	RBL2	RBPJL	RGMA	SMAD1	SMAD2	SMAD3	SMAD4	SMAD5	SMAD6	SMAD7	SMAD9	SMO
G	SP1	STAT3	SUFU	TCF7	TCF7L1	TCF7L2	TGFBR1	TGFBR2	TGFBR3	TGFBRAP1	VANGL2	ZEB2
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFH0312963	ENST00000539637.5	ACVR1	ENSG00000115170	activin A receptor type 1 Source HGNC Symbol Acc HGNC 171
A02	UPFH0109158	ENST00000563121.1	ACVR1B	ENSG00000135503	activin A receptor type 1B Source HGNC Symbol Acc HGNC 172
A03	UPFH0547085	ENST00000348328.9	ACVR1C	ENSG00000123612	activin A receptor type 1C Source HGNC Symbol Acc HGNC 18123
A04	UPFH1132215	ENST00000535787.5	ACVR2A	ENSG00000121989	activin A receptor type 2A Source HGNC Symbol Acc HGNC 173
A05	UPFH0530854	ENST00000352511.5	ACVR2B	ENSG00000114739	activin A receptor type 2B Source HGNC Symbol Acc HGNC 174
A06	UPFH0438756	ENST00000419526.6	ACVRL1	ENSG00000139567	activin A receptor like type 1 Source HGNC Symbol Acc HGNC 175
A07	UPFH1132229	ENST00000379791.7	AMHR2	ENSG00000135409	anti-Mullerian hormone receptor type 2 Source HGNC Symbol Acc HGNC 465
A08	UPFH1132272	ENST00000234739.8	BCL9	ENSG00000116128	BCL9, transcription coactivator Source HGNC Symbol Acc HGNC 1008
A09	UPFH0220446	ENST00000532899.2	BCL9L	ENSG00000186174	BCL9 like Source HGNC Symbol Acc HGNC 23688
A10	UPFH1132901	ENST00000372037.7	BMPR1A	ENSG00000107779	bone morphogenetic protein receptor type 1A Source HGNC Symbol Acc HGNC 1076
A11	UPFH0181358	ENST00000515059.5	BMPR1B	ENSG00000138696	bone morphogenetic protein receptor type 1B Source HGNC Symbol Acc HGNC 1077
A12	UPFH0383804	ENST00000374580.8	BMPR2	ENSG00000204217	bone morphogenetic protein receptor type 2 Source HGNC Symbol Acc HGNC 1078
B01	UPFH0345164	ENST00000548877.1	CDX2	ENSG00000165556	caudal type homeobox 2 Source HGNC Symbol Acc HGNC 1806
B02	UPFH0338543	ENST00000573517.6	CREBBP	ENSG00000005339	CREB binding protein Source HGNC Symbol Acc HGNC 2348
B03	UPFH0097734	ENST00000396183.7	CTNNB1	ENSG00000168036	catenin beta 1 Source HGNC Symbol Acc HGNC 2514
B04	UPFH0277450	ENST00000521429.5	E2F5	ENSG00000133740	E2F transcription factor 5 Source HGNC Symbol Acc HGNC 3119
B05	UPFH0535657	ENST00000344849.4	ENG	ENSG00000106991	endoglin Source HGNC Symbol Acc HGNC 3349
B06	UPFH0118049	ENST00000635691.1	EP300	ENSG00000100393	E1A binding protein p300 Source HGNC Symbol Acc HGNC 3373
B07	UPFH0483731	ENST00000447712.6	FGFR1	ENSG00000077782	fibroblast growth factor receptor 1 Source HGNC Symbol Acc HGNC 3688
B08	UPFH0529346	ENST00000604236.5	FGFR2	ENSG00000066468	fibroblast growth factor receptor 2 Source HGNC Symbol Acc HGNC 3689
B09	UPFH0584716	ENST00000440486.7	FGFR3	ENSG00000068078	fibroblast growth factor receptor 3 Source HGNC Symbol Acc HGNC 3690
B10	UPFH0491736	ENST00000393648.6	FGFR4	ENSG00000160867	fibroblast growth factor receptor 4 Source HGNC Symbol Acc HGNC 3691
B11	UPFH0039775	ENST00000287934.3	FZD1	ENSG00000157240	frizzled class receptor 1 Source HGNC Symbol Acc HGNC 4038
B12	UPFH0607599	ENST00000315323.4	FZD2	ENSG00000180340	frizzled class receptor 2 Source HGNC Symbol Acc HGNC 4040
C01	UPFH1132405	ENST00000537916.2	FZD3	ENSG00000104290	frizzled class receptor 3 Source HGNC Symbol Acc HGNC 4041
C02	UPFH1132406	ENST00000531380.2	FZD4	ENSG00000174804	frizzled class receptor 4 Source HGNC Symbol Acc HGNC 4042
C03	UPFH1132407	ENST00000295417.4	FZD5	ENSG00000163251	frizzled class receptor 5 Source HGNC Symbol Acc HGNC 4043
C04	UPFH1132408	ENST00000523739.5	FZD6	ENSG00000164930	frizzled class receptor 6 Source HGNC Symbol Acc HGNC 4044
C05	UPFH0485950	ENST00000286201.2	FZD7	ENSG00000155760	frizzled class receptor 7 Source HGNC Symbol Acc HGNC 4045
C06	UPFH0494687	ENST00000374694.2	FZD8	ENSG00000177283	frizzled class receptor 8 Source HGNC Symbol Acc HGNC 4046
C07	UPFH0444740	ENST00000344575.4	FZD9	ENSG00000188763	frizzled class receptor 9 Source HGNC Symbol Acc HGNC 4047
C08	UPFH0266526	ENST00000546141.5	GLI1	ENSG00000111087	GLI family zinc finger 1 Source HGNC Symbol Acc HGNC 4317
C09	UPFH0462614	ENST00000435313.6	GLI2	ENSG00000074047	GLI family zinc finger 2 Source HGNC Symbol Acc HGNC 4318
C10	UPFH0025980	ENST00000479210.1	GLI3	ENSG00000106571	GLI family zinc finger 3 Source HGNC Symbol Acc HGNC 4319
		ENST00000523		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH0582962	039.5	IL6ST	134352	interleukin 6 signal transducer Source HGNC Symbol Acc HGNC 6021
C12	UPFH1132518	ENST00000438313.6	LEF1	ENSG00000138795	lymphoid enhancer binding factor 1 Source HGNC Symbol Acc HGNC 6551
D01	UPFH0041279	ENST00000506003.5	LIFR	ENSG00000113594	LIF receptor alpha Source HGNC Symbol Acc HGNC 6597
D02	UPFH1132877	ENST00000294304.12	LRP5	ENSG00000162337	LDL receptor related protein 5 Source HGNC Symbol Acc HGNC 6697
D03	UPFH1132525	ENST00000543091.1	LRP6	ENSG00000070018	LDL receptor related protein 6 Source HGNC Symbol Acc HGNC 6698
D04	UPFH0150319	ENST00000407925.5	LTBP1	ENSG00000049323	latent transforming growth factor beta binding protein 1 Source HGNC Symbol Acc HGNC 6714
D05	UPFH1132526	ENST00000556690.5	LTBP2	ENSG00000119681	latent transforming growth factor beta binding protein 2 Source HGNC Symbol Acc HGNC 6715
D06	UPFH0399713	ENST00000532932.5	LTBP3	ENSG00000168056	latent transforming growth factor beta binding protein 3 Source HGNC Symbol Acc HGNC 6716
D07	UPFH0460405	ENST00000612121.4	LTBP4	ENSG00000090006	latent transforming growth factor beta binding protein 4 Source HGNC Symbol Acc HGNC 6717
D08	UPFH0059250	ENST00000421914.5	NCSTN	ENSG00000162736	nicastrin Source HGNC Symbol Acc HGNC 17091
D09	UPFH0317172	ENST00000354436.6	NFAT5	ENSG00000102908	nuclear factor of activated T cells 5 Source HGNC Symbol Acc HGNC 7774
D10	UPFH0595445	ENST00000591814.5	NFATC1	ENSG00000131196	nuclear factor of activated T cells 1 Source HGNC Symbol Acc HGNC 7775
D11	UPFH0101128	ENST00000610033.5	NFATC2	ENSG00000101096	nuclear factor of activated T cells 2 Source HGNC Symbol Acc HGNC 7776
D12	UPFH0123113	ENST00000562926.5	NFATC3	ENSG00000072736	nuclear factor of activated T cells 3 Source HGNC Symbol Acc HGNC 7777
E01	UPFH0189206	ENST00000553879.5	NFATC4	ENSG00000100968	nuclear factor of activated T cells 4 Source HGNC Symbol Acc HGNC 7778
E02	UPFH0543837	ENST00000277541.7	NOTCH1	ENSG00000148400	notch 1 Source HGNC Symbol Acc HGNC 7881
E03	UPFH0591047	ENST00000640021.1	NOTCH2	ENSG00000134250	notch 2 Source HGNC Symbol Acc HGNC 7882
E04	UPFH0053070	ENST00000597756.1	NOTCH3	ENSG00000074181	notch 3 Source HGNC Symbol Acc HGNC 7883
E05	UPFH1132594	ENST00000375023.3	NOTCH4	ENSG00000204301	notch 4 Source HGNC Symbol Acc HGNC 7884
E06	UPFH0382093	ENST00000555254.5	PSEN1	ENSG00000080815	presenilin 1 Source HGNC Symbol Acc HGNC 9508
E07	UPFH0159620	ENST00000460775.5	PSEN2	ENSG00000143801	presenilin 2 Source HGNC Symbol Acc HGNC 9509
E08	UPFH0240222	ENST00000222266.2	PSENEN	ENSG00000205155	presenilin enhancer, gamma-secretase subunit Source HGNC Symbol Acc HGNC 30100
E09	UPFH0155270	ENST00000331920.10	PTCH1	ENSG00000185920	patched 1 Source HGNC Symbol Acc HGNC 9585
E10	UPFH0215576	ENST00000294484.7	DISP3	ENSG00000204624	dispatched RND transporter family member 3 Source HGNC Symbol Acc HGNC 29251
E11	UPFH0605338	ENST00000368456.1	PYGO2	ENSG00000163348	pygopus family PHD finger 2 Source HGNC Symbol Acc HGNC 30257
E12	UPFH0109902	ENST00000373664.7	RBL1	ENSG00000080839	RB transcriptional corepressor like 1 Source HGNC Symbol Acc HGNC 9893
F01	UPFH1132654	ENST00000544405.6	RBL2	ENSG00000103479	RB transcriptional corepressor like 2 Source HGNC Symbol Acc HGNC 9894
F02	UPFH0445760	ENST00000464504.2	RBPJL	ENSG00000124232	recombination signal binding protein for immunoglobulin kappa J region like Source HGNC Symbol Acc HGNC 13761
F03	UPFH0213773	ENST00000557420.1	RGMA	ENSG00000182175	repulsive guidance molecule BMP co-receptor a Source HGNC Symbol Acc HGNC 30308
F04	UPFH1132685	ENST00000515385.1	SMAD1	ENSG00000170365	SMAD family member 1 Source HGNC Symbol Acc HGNC 6767
F05	UPFH1132686	ENST00000585978.1	SMAD2	ENSG00000175387	SMAD family member 2 Source HGNC Symbol Acc HGNC 6768
F06	UPFH1132840	ENST00000439724.7	SMAD3	ENSG00000166949	SMAD family member 3 Source HGNC Symbol Acc HGNC 6769
F07	UPFH0151428	ENST00000342988.7	SMAD4	ENSG00000141646	SMAD family member 4 Source HGNC Symbol Acc HGNC 6770
F08	UPFH1132687	ENST00000509297.6	SMAD5	ENSG00000113658	SMAD family member 5 Source HGNC Symbol Acc HGNC 6771
F09	UPFH1132688	ENST00000288840.10	SMAD6	ENSG00000137834	SMAD family member 6 Source HGNC Symbol Acc HGNC 6772
F10	UPFH0372810	ENST00000262158.7	SMAD7	ENSG00000101665	SMAD family member 7 Source HGNC Symbol Acc HGNC 6773

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH0026875	ENST00000379826.4	SMAD9	ENSG00000120693	SMAD family member 9 Source HGNC Symbol Acc HGNC 6774
F12	UPFH0104215	ENST00000462420.2	SMO	ENSG00000128602	smoothened, frizzled class receptor Source HGNC Symbol Acc HGNC 11119
G01	UPFH1132843	ENST00000327443.9	SP1	ENSG00000185591	Sp1 transcription factor Source HGNC Symbol Acc HGNC 11205
G02	UPFH0531262	ENST00000404395.3	STAT3	ENSG00000168610	signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364
G03	UPFH0106393	ENST00000471000.1	SUFU	ENSG00000107882	SUFU negative regulator of hedgehog signaling Source HGNC Symbol Acc HGNC 16466
G04	UPFH1132709	ENST00000520958.5	TCF7	ENSG00000081059	transcription factor 7 Source HGNC Symbol Acc HGNC 11639
G05	UPFH1132710	ENST00000282111.4	TCF7L1	ENSG00000152284	transcription factor 7 like 1 Source HGNC Symbol Acc HGNC 11640
G06	UPFH0509582	ENST00000636585.1	TCF7L2	ENSG00000148737	transcription factor 7 like 2 Source HGNC Symbol Acc HGNC 11641
G07	UPFH1132719	ENST00000374990.6	TGFBR1	ENSG00000106799	transforming growth factor beta receptor 1 Source HGNC Symbol Acc HGNC 11772
G08	UPFH0249772	ENST00000295754.9	TGFBR2	ENSG00000163513	transforming growth factor beta receptor 2 Source HGNC Symbol Acc HGNC 11773
G09	UPFH1132720	ENST00000525962.5	TGFBR3	ENSG00000069702	transforming growth factor beta receptor 3 Source HGNC Symbol Acc HGNC 11774
G10	UPFH1132721	ENST00000393359.7	TGFBRAP1	ENSG00000135966	transforming growth factor beta receptor associated protein 1 Source HGNC Symbol Acc HGNC 16836
G11	UPFH1132754	ENST00000368061.3	VANGL2	ENSG00000162738	VANGL planar cell polarity protein 2 Source HGNC Symbol Acc HGNC 15511
G12	UPFH1132769	ENST00000409487.7	ZEB2	ENSG00000169554	zinc finger E-box binding homeobox 2 Source HGNC Symbol Acc HGNC 14881
H01	UPFH1132936	ENST00000646664.1	ACTB	ENSG00000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	UPFH1132937	ENST00000544417.5	B2M	ENSG00000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	UPFH1132938	ENST00000229239.10	GAPDH	ENSG00000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	UPFH1132939	ENST00000298556.8	HPRT1	ENSG00000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	UPFH1132941	ENST00000392514.9	RPLP0	ENSG00000089157	ribosomal protein lateral stalk subunit P0 Source HGNC Symbol Acc HGNC 10371
H06	UPFH1126608	UPL_HGDC	HGDC	UPL_HGDC	Human Genomic DNA Contamination
H07	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H08	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H09	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H10	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H11	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H12	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control



## Related products

Product	Contents	Cat. no.
QuantiNova LNA Probe PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA Probe PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249945
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 Probe RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 $\mu$ l QuantiNova Probe 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	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water	208252

\*Larger kit sizes available.

The QuantiNova LNA Probe 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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