

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

## Human Stem Cell

Cat. no. 249955 UPHS-405ZR

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	ABCG2	ACAN	ACTC1	ADAR	ALDH1A1	ALDH2	ALPI	APC	ASCL2	AXIN1	BGLAP	BMP1
B	BMP2	BMP3	BTRC	CCNA2	CCND1	CCND2	CCNE1	CD3D	CD4	CD44	CD8A	CD8B
C	CDC42	CDH1	CDH2	CDK1	COL1A1	COL2A1	COL9A1	CTNNA1	CXCL12	DHH	DLL1	DLL3
D	DTX1	DTX2	DVL1	EP300	FGF1	FGF2	FGF3	FGF4	FGFR1	FOXA2	FRAT1	FZD1
E	GDF2	GDF3	GJA1	GJB1	GJB2	HDAC2	HSPA9	IGF1	ISL1	JAG1	KAT2A	KAT7
F	KAT8	KRT15	MME	MSX1	MYC	MYOD1	NCAM1	NEUROG2	NOTCH1	NOTCH2	NUMB	PARD6A
G	PDX1	PPARD	PPARG	RB1	S100B	SIGMAR1	SOX1	SOX2	TBXT	TERT	TUBB3	WNT1
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	UPFH0026485	ENST00000650821.1	ABCG2	ENSG00000118777	ATP binding cassette subfamily G member 2 (Junior blood group) Source HGNC Symbol Acc HGNC 74
A02	UPFH0369901	ENST00000559004.5	ACAN	ENSG00000157766	aggrecan Source HGNC Symbol Acc HGNC 319
A03	UPFH0037178	ENST00000557860.1	ACTC1	ENSG00000159251	actin, alpha, cardiac muscle 1 Source HGNC Symbol Acc HGNC 143
A04	UPFH1132219	ENST00000647597.1	ADAR	ENSG00000111275	adenosine deaminase, RNA specific Source HGNC Symbol Acc HGNC 225
A05	UPFH0409683	ENST00000482210.5	ALDH1A1	ENSG00000165092	aldehyde dehydrogenase 1 family member A1 Source HGNC Symbol Acc HGNC 402
A06	UPFH0365632	ENST00000549106.1	ALDH2	ENSG00000111275	aldehyde dehydrogenase 2 family member Source HGNC Symbol Acc HGNC 404
A07	UPFH0294973	ENST00000295463.4	ALPI	ENSG00000163295	alkaline phosphatase, intestinal Source HGNC Symbol Acc HGNC 437
A08	UPFH1132236	ENST00000257430.9	APC	ENSG00000134982	APC, WNT signaling pathway regulator Source HGNC Symbol Acc HGNC 583
A09	UPFH0441226	ENST00000331289.4	ASCL2	ENSG00000183734	achaete-scute family bHLH transcription factor 2 Source HGNC Symbol Acc HGNC 739
A10	UPFH1132262	ENST00000262320.8	AXIN1	ENSG00000103126	axin 1 Source HGNC Symbol Acc HGNC 903
A11	UPFH1132966	ENST00000368272.5	BGLAP	ENSG00000242252	bone gamma-carboxyglutamate protein Source HGNC Symbol Acc HGNC 1043
A12	UPFH1132274	ENST00000306385.10	BMP1	ENSG00000168487	bone morphogenetic protein 1 Source HGNC Symbol Acc HGNC 1067
B01	UPFH1132780	ENST00000378827.5	BMP2	ENSG00000125845	bone morphogenetic protein 2 Source HGNC Symbol Acc HGNC 1069
B02	UPFH1132275	ENST00000282701.3	BMP3	ENSG00000152785	bone morphogenetic protein 3 Source HGNC Symbol Acc HGNC 1070
B03	UPFH0358747	ENST00000370187.8	BTRC	ENSG00000166167	beta-transducin repeat containing E3 ubiquitin protein ligase Source HGNC Symbol Acc HGNC 1144
B04	UPFH0122485	ENST00000618014.1	CCNA2	ENSG00000145386	cyclin A2 Source HGNC Symbol Acc HGNC 1578
B05	UPFH0430337	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
B06	UPFH1132296	ENST00000261254.8	CCND2	ENSG00000118971	cyclin D2 Source HGNC Symbol Acc HGNC 1583
B07	UPFH1132297	ENST00000444983.6	CCNE1	ENSG00000105173	cyclin E1 Source HGNC Symbol Acc HGNC 1589
B08	UPFH0362550	ENST00000526561.1	CD3D	ENSG00000167286	CD3d molecule Source HGNC Symbol Acc HGNC 1673
B09	UPFH1132302	ENST00000541982.5	CD4	ENSG00000101610	CD4 molecule Source HGNC Symbol Acc HGNC 1678
B10	UPFH0253499	ENST00000428726.7	CD44	ENSG00000026508	CD44 molecule (Indian blood group) Source HGNC Symbol Acc HGNC 1681
B11	UPFH0396984	ENST00000409781.1	CD8A	ENSG00000153563	CD8a molecule Source HGNC Symbol Acc HGNC 1706
B12	UPFH0060065	ENST00000393761.6	CD8B	ENSG00000172116	CD8b molecule Source HGNC Symbol Acc HGNC 1707
C01	UPFH0571108	ENST00000400259.5	CDC42	ENSG00000070831	cell division cycle 42 Source HGNC Symbol Acc HGNC 1736
C02	UPFH1132791	ENST00000261769.10	CDH1	ENSG00000039068	cadherin 1 Source HGNC Symbol Acc HGNC 1748
C03	UPFH1132792	ENST00000399380.7	CDH2	ENSG00000170558	cadherin 2 Source HGNC Symbol Acc HGNC 1759
C04	UPFH1132307	ENST00000614696.4	CDK1	ENSG00000170312	cyclin dependent kinase 1 Source HGNC Symbol Acc HGNC 1722
C05	UPFH0361104	ENST00000225964.9	COL1A1	ENSG00000108821	collagen type I alpha 1 chain Source HGNC Symbol Acc HGNC 2197
C06	UPFH0228314	ENST00000380518.8	COL2A1	ENSG00000139219	collagen type II alpha 1 chain Source HGNC Symbol Acc HGNC 2200
C07	UPFH0485068	ENST00000486080.5	COL9A1	ENSG00000112280	collagen type IX alpha 1 chain Source HGNC Symbol Acc HGNC 2217
C08	UPFH0447603	ENST00000627109.2	CTNNA1	ENSG00000044115	catenin alpha 1 Source HGNC Symbol Acc HGNC 2509
C09	UPFH0092551	ENST00000374429.6	CXCL12	ENSG00000107562	C-X-C motif chemokine ligand 12 Source HGNC Symbol Acc HGNC 10672
C10	UPFH0095877	ENST00000649637.2	DHH	ENSG00000139549	desert hedgehog signaling molecule Source HGNC Symbol Acc HGNC 2865
		ENST00000630		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH0541475	500.1	DLL1	198719	delta like canonical Notch ligand 1 Source HGNC Symbol Acc HGNC 2908
C12	UPFH0547690	ENST00000205143.4	DLL3	ENSG00000090932	delta like canonical Notch ligand 3 Source NCBI gene Acc 10683
D01	UPFH0305831	ENST00000547974.5	DTX1	ENSG00000135144	deltex E3 ubiquitin ligase 1 Source HGNC Symbol Acc HGNC 3060
D02	UPFH0563392	ENST00000465488.1	DTX2	ENSG00000091073	deltex E3 ubiquitin ligase 2 Source HGNC Symbol Acc HGNC 15973
D03	UPFH0264310	ENST00000378891.9	DVL1	ENSG00000107404	dishevelled segment polarity protein 1 Source HGNC Symbol Acc HGNC 3084
D04	UPFH0118049	ENST00000635691.1	EP300	ENSG00000100393	E1A binding protein p300 Source HGNC Symbol Acc HGNC 3373
D05	UPFH0087975	ENST00000612258.4	FGF1	ENSG00000113578	fibroblast growth factor 1 Source HGNC Symbol Acc HGNC 3665
D06	UPFH0613093	ENST00000264498.7	FGF2	ENSG00000138685	fibroblast growth factor 2 Source HGNC Symbol Acc HGNC 3676
D07	UPFH0253014	ENST00000334134.4	FGF3	ENSG00000186895	fibroblast growth factor 3 Source HGNC Symbol Acc HGNC 3681
D08	UPFH1172907	ENST00000168712.3	FGF4	ENSG00000075388	fibroblast growth factor 4 Source HGNC Symbol Acc HGNC 3682
D09	UPFH0483731	ENST00000447712.6	FGFR1	ENSG00000077782	fibroblast growth factor receptor 1 Source HGNC Symbol Acc HGNC 3688
D10	UPFH0135307	ENST00000419308.6	FOXA2	ENSG00000125798	forkhead box A2 Source HGNC Symbol Acc HGNC 5022
D11	UPFH0606332	ENST00000371021.4	FRAT1	ENSG00000165879	FRAT1, WNT signaling pathway regulator Source HGNC Symbol Acc HGNC 3944
D12	UPFH0039775	ENST00000287934.3	FZD1	ENSG00000157240	frizzled class receptor 1 Source HGNC Symbol Acc HGNC 4038
E01	UPFH0412733	ENST00000581492.2	GDF2	ENSG00000263761	growth differentiation factor 2 Source HGNC Symbol Acc HGNC 4217
E02	UPFH1132908	ENST00000329913.4	GDF3	ENSG00000184344	growth differentiation factor 3 Source HGNC Symbol Acc HGNC 4218
E03	UPFH0199748	ENST00000649003.1	GJA1	ENSG00000152661	gap junction protein alpha 1 Source HGNC Symbol Acc HGNC 4274
E04	UPFH0329117	ENST00000374022.3	GJB1	ENSG00000169562	gap junction protein beta 1 Source HGNC Symbol Acc HGNC 4283
E05	UPFH0363834	ENST00000382844.2	GJB2	ENSG00000165474	gap junction protein beta 2 Source HGNC Symbol Acc HGNC 4284
E06	UPFH1132437	ENST00000519065.6	HDAC2	ENSG00000196591	histone deacetylase 2 Source HGNC Symbol Acc HGNC 4853
E07	UPFH0218366	ENST00000506477.5	HSPA9	ENSG00000113013	heat shock protein family A (Hsp70) member 9 Source HGNC Symbol Acc HGNC 5244
E08	UPFH0229443	ENST00000337514.10	IGF1	ENSG00000017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
E09	UPFH0580045	ENST00000230658.12	ISL1	ENSG00000016082	ISL LIM homeobox 1 Source HGNC Symbol Acc HGNC 6132
E10	UPFH0500277	ENST00000254958.10	JAG1	ENSG00000101384	jagged 1 Source HGNC Symbol Acc HGNC 6188
E11	UPFH1132505	ENST00000225916.10	KAT2A	ENSG00000108773	lysine acetyltransferase 2A Source HGNC Symbol Acc HGNC 4201
E12	UPFH1132508	ENST00000259021.9	KAT7	ENSG00000136504	lysine acetyltransferase 7 Source HGNC Symbol Acc HGNC 17016
F01	UPFH1132509	ENST00000219797.9	KAT8	ENSG00000103510	lysine acetyltransferase 8 Source HGNC Symbol Acc HGNC 17933
F02	UPFH0095609	ENST00000497016.5	KRT15	ENSG00000171346	keratin 15 Source HGNC Symbol Acc HGNC 6421
F03	UPFH0317045	ENST00000460393.5	MME	ENSG00000196549	membrane metalloendopeptidase Source HGNC Symbol Acc HGNC 7154
F04	UPFH0298422	ENST00000652146.1	MSX1	ENSG00000163132	msh homeobox 1 Source HGNC Symbol Acc HGNC 7391
F05	UPFH1132563	ENST00000517291.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
F06	UPFH0179986	ENST00000250003.4	MYOD1	ENSG00000129152	myogenic differentiation 1 Source HGNC Symbol Acc HGNC 7611
F07	UPFH0013835	ENST00000531044.5	NCAM1	ENSG00000149294	neural cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 7656
F08	UPFH0379726	ENST00000313341.4	NEUROG2	ENSG00000178403	neurogenin 2 Source HGNC Symbol Acc HGNC 13805
F09	UPFH0543837	ENST00000277541.7	NOTCH1	ENSG00000148400	notch 1 Source HGNC Symbol Acc HGNC 7881
F10	UPFH0591047	ENST00000640021.1	NOTCH2	ENSG00000134250	notch 2 Source HGNC Symbol Acc HGNC 7882

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH0067916	ENST00000555238.5	NUMB	ENSG00000133961	NUMB, endocytic adaptor protein Source HGNC Symbol Acc HGNC 8060
F12	UPFH0458032	ENST00000219255.3	PARD6A	ENSG00000102981	par-6 family cell polarity regulator alpha Source HGNC Symbol Acc HGNC 15943
G01	UPFH0537958	ENST00000381033.5	PDX1	ENSG00000139515	pancreatic and duodenal homeobox 1 Source HGNC Symbol Acc HGNC 6107
G02	UPFH1132629	ENST00000448077.6	PPARD	ENSG00000112033	peroxisome proliferator activated receptor delta Source HGNC Symbol Acc HGNC 9235
G03	UPFH0284890	ENST00000477039.5	PPARG	ENSG00000132170	peroxisome proliferator activated receptor gamma Source HGNC Symbol Acc HGNC 9236
G04	UPFH0001483	ENST00000267163.5	RB1	ENSG00000139687	RB transcriptional corepressor 1 Source HGNC Symbol Acc HGNC 9884
G05	UPFH0069870	ENST00000397648.1	S100B	ENSG00000160307	S100 calcium binding protein B Source HGNC Symbol Acc HGNC 10500
G06	UPFH0522016	ENST00000353468.4	SIGMAR1	ENSG00000147955	sigma non-opioid intracellular receptor 1 Source HGNC Symbol Acc HGNC 8157
G07	UPFH0330370	ENST00000330949.2	SOX1	ENSG00000182968	SRY-box 1 Source HGNC Symbol Acc HGNC 11189
G08	UPFH0376428	ENST00000325404.3	SOX2	ENSG00000181449	SRY-box 2 Source HGNC Symbol Acc HGNC 11195
G09	UPFH0553481	ENST00000296946.6	TBXT	ENSG00000164458	T-box transcription factor T Source HGNC Symbol Acc HGNC 11515
G10	UPFH0248987	ENST00000310581.9	TERT	ENSG00000164362	telomerase reverse transcriptase Source HGNC Symbol Acc HGNC 11730
G11	UPFH0540819	ENST00000557490.5	TUBB3	ENSG00000258947	tubulin beta 3 class III Source HGNC Symbol Acc HGNC 20772
G12	UPFH0344484	ENST00000293549.3	WNT1	ENSG00000125084	Wnt family member 1 Source HGNC Symbol Acc HGNC 12774
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.

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