

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

## Human Embryonic Stem Cells

Cat. no. 249955 UPHS-081ZR

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	ACTA2	AICDA	ALB	ALPL	CCNA2	CD44	CDC42	CDK1	CHD1	CHD7	CNOT3	DES
B	DPPA2	DPPA3	DPPA4	DPPA5	EN2	ENG	ESRRB	ETV2	FGF2	FGF5	FLII	GATA1
C	GATA2	GATA6	GDF3	GFAP	GSC	HAND1	HNF4A	HSPA9	ISL1	KAT5	KLF4	LIN28A
D	MEIS1	MESP1	MIXL1	MYBL2	MYC	MYOD1	NANOG	NCAM1	NES	NIKX2-5	NR0B1	NR5A2
E	NR6A1	NTSE	OLIG2	OTX2	PAF1	PAX6	POU5F1	PRDM14	RIF1	SALL4	SCN1A	SMAD1
F	SMAD2	SMAD3	SOX15	SOX17	SOX2	SOX3	SOX7	STAT3	TBXT	TAGLN	TAL1	TAT
G	TBX3	TCF3	TCL1A	TGDF1	TEK	TERT	THAP11	THY1	TRIM28	UTF1	ZFP42	ZFX
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	UPFH0537484	ENST00000224784.10	ACTA2	ENSG00000107796	actin, alpha 2, smooth muscle, aorta Source HGNC Symbol Acc HGNC 130
A02	UPFH0415700	ENST00000544516.5	AICDA	ENSG00000111732	activation induced cytidine deaminase Source HGNC Symbol Acc HGNC 13203
A03	UPFH1132224	ENST00000415165.6	ALB	ENSG00000163631	albumin Source HGNC Symbol Acc HGNC 399
A04	UPFH0616425	ENST00000374832.5	ALPL	ENSG00000162551	alkaline phosphatase, biomineralization associated Source HGNC Symbol Acc HGNC 438
A05	UPFH0122485	ENST00000618014.1	CCNA2	ENSG00000145386	cyclin A2 Source HGNC Symbol Acc HGNC 1578
A06	UPFH0253499	ENST00000428726.7	CD44	ENSG00000265508	CD44 molecule (Indian blood group) Source HGNC Symbol Acc HGNC 1681
A07	UPFH0571108	ENST00000400259.5	CDC42	ENSG00000070831	cell division cycle 42 Source HGNC Symbol Acc HGNC 1736
A08	UPFH1132307	ENST00000614696.4	CDK1	ENSG00000170312	cyclin dependent kinase 1 Source HGNC Symbol Acc HGNC 1722
A09	UPFH0592457	ENST00000512392.5	CHD1	ENSG00000153922	chromodomain helicase DNA binding protein 1 Source HGNC Symbol Acc HGNC 1915
A10	UPFH0134243	ENST00000525508.1	CHD7	ENSG00000171316	chromodomain helicase DNA binding protein 7 Source HGNC Symbol Acc HGNC 20626
A11	UPFH0271007	ENST00000221232.11	CNOT3	ENSG00000088038	CCR4-NOT transcription complex subunit 3 Source HGNC Symbol Acc HGNC 7879
A12	UPFH0404526	ENST00000492726.1	DES	ENSG00000175084	desmin Source HGNC Symbol Acc HGNC 2770
B01	UPFH0379139	ENST00000478945.1	DPPA2	ENSG00000163530	developmental pluripotency associated 2 Source HGNC Symbol Acc HGNC 19197
B02	UPFH0209340	ENST00000345088.3	DPPA3	ENSG00000187569	developmental pluripotency associated 3 Source HGNC Symbol Acc HGNC 19199
B03	UPFH0284226	ENST00000463966.5	DPPA4	ENSG00000121570	developmental pluripotency associated 4 Source HGNC Symbol Acc HGNC 19200
B04	UPFH0476781	ENST00000370370.4	DPPA5	ENSG00000203909	developmental pluripotency associated 5 Source HGNC Symbol Acc HGNC 19201
B05	UPFH0606294	ENST00000297375.4	EN2	ENSG00000164778	engrailed homeobox 2 Source HGNC Symbol Acc HGNC 3343
B06	UPFH0535657	ENST00000344849.4	ENG	ENSG00000106991	endoglin Source HGNC Symbol Acc HGNC 3349
B07	UPFH0597464	ENST00000509242.5	ESRRB	ENSG00000119715	estrogen related receptor beta Source HGNC Symbol Acc HGNC 3473
B08	UPFH0151914	ENST00000379026.6	ETV2	ENSG00000105672	ETS variant 2 Source HGNC Symbol Acc HGNC 3491
B09	UPFH0613093	ENST00000264498.7	FGF2	ENSG00000138685	fibroblast growth factor 2 Source HGNC Symbol Acc HGNC 3676
B10	UPFH0217980	ENST00000507780.1	FGF5	ENSG00000138675	fibroblast growth factor 5 Source HGNC Symbol Acc HGNC 3683
B11	UPFH0465788	ENST00000327031.9	FLII	ENSG00000177731	FLII, actin remodeling protein Source HGNC Symbol Acc HGNC 3750
B12	UPFH0379883	ENST00000651144.1	GATA1	ENSG00000102145	GATA binding protein 1 Source HGNC Symbol Acc HGNC 4170
C01	UPFH0034415	ENST00000430265.6	GATA2	ENSG00000179348	GATA binding protein 2 Source HGNC Symbol Acc HGNC 4171
C02	UPFH0399887	ENST00000269216.8	GATA6	ENSG00000141448	GATA binding protein 6 Source HGNC Symbol Acc HGNC 4174
C03	UPFH1132908	ENST00000329913.4	GDF3	ENSG00000184344	growth differentiation factor 3 Source HGNC Symbol Acc HGNC 4218
C04	UPFH0473904	ENST00000592320.6	GFAP	ENSG00000131095	glial fibrillary acidic protein Source HGNC Symbol Acc HGNC 4235
C05	UPFH1132427	ENST00000238558.4	GSC	ENSG00000133937	goosecoid homeobox Source HGNC Symbol Acc HGNC 4612
C06	UPFH0372159	ENST00000231121.3	HAND1	ENSG00000113196	heart and neural crest derivatives expressed 1 Source HGNC Symbol Acc HGNC 4807
C07	UPFH0223088	ENST00000372920.1	HNF4A	ENSG00000101076	hepatocyte nuclear factor 4 alpha Source HGNC Symbol Acc HGNC 5024
C08	UPFH0218366	ENST00000506477.5	HSPA9	ENSG00000113013	heat shock protein family A (Hsp70) member 9 Source HGNC Symbol Acc HGNC 5244
C09	UPFH0580045	ENST00000230658.12	ISL1	ENSG00000016082	ISL LIM homeobox 1 Source HGNC Symbol Acc HGNC 6132
C10	UPFH1132506	ENST00000534650.5	KAT5	ENSG00000172977	lysine acetyltransferase 5 Source HGNC Symbol Acc HGNC 5275
		ENST00000374		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH0017730	672.5	KLF4	136826	Kruppel like factor 4 Source HGNC Symbol Acc HGNC 6348
C12	UPFH0090369	ENST00000326279.11	LIN28A	ENSG00000131914	lin-28 homolog A Source HGNC Symbol Acc HGNC 15986
D01	UPFH0550156	ENST00000488550.5	MEIS1	ENSG00000143995	Meis homeobox 1 Source HGNC Symbol Acc HGNC 7000
D02	UPFH0262080	ENST00000300057.4	MESP1	ENSG00000166823	mesoderm posterior bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 29658
D03	UPFH0090456	ENST00000557734.1	MIXL1	ENSG00000185155	Mix paired-like homeobox Source HGNC Symbol Acc HGNC 13363
D04	UPFH0003505	ENST00000396863.8	MYBL2	ENSG00000101057	MYB proto-oncogene like 2 Source HGNC Symbol Acc HGNC 7548
D05	UPFH1132563	ENST00000517291.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
D06	UPFH0179986	ENST00000250003.4	MYOD1	ENSG00000129152	myogenic differentiation 1 Source HGNC Symbol Acc HGNC 7611
D07	UPFH1172932	ENST00000541267.5	NANOG	ENSG00000111704	Nanog homeobox Source HGNC Symbol Acc HGNC 20857
D08	UPFH0013835	ENST00000531044.5	NCAM1	ENSG00000149294	neural cell adhesion molecule 1 Source HGNC Symbol Acc HGNC 7656
D09	UPFH0001264	ENST00000368223.4	NES	ENSG00000132688	nestin Source HGNC Symbol Acc HGNC 7756
D10	UPFH0227465	ENST00000521848.1	NKX2-5	ENSG00000183072	NK2 homeobox 5 Source HGNC Symbol Acc HGNC 2488
D11	UPFH0362291	ENST00000378970.4	NROB1	ENSG00000169297	nuclear receptor subfamily 0 group B member 1 Source HGNC Symbol Acc HGNC 7960
D12	UPFH0067008	ENST00000367357.3	NR5A2	ENSG00000116833	nuclear receptor subfamily 5 group A member 2 Source HGNC Symbol Acc HGNC 7984
E01	UPFH0070857	ENST00000373584.7	NR6A1	ENSG00000148200	nuclear receptor subfamily 6 group A member 1 Source HGNC Symbol Acc HGNC 7985
E02	UPFH0577262	ENST00000416334.5	NT5E	ENSG00000135318	5'-nucleotidase ecto Source HGNC Symbol Acc HGNC 8021
E03	UPFH0058283	ENST00000382357.4	OLIG2	ENSG00000205927	oligodendrocyte transcription factor 2 Source HGNC Symbol Acc HGNC 9398
E04	UPFH0514197	ENST00000554845.1	OTX2	ENSG00000165588	orthodenticle homeobox 2 Source HGNC Symbol Acc HGNC 8522
E05	UPFH0087510	ENST00000221265.8	PAF1	ENSG00000006712	PAF1 homolog, Paf1/RNA polymerase II complex component Source HGNC Symbol Acc HGNC 25459
E06	UPFH0078275	ENST00000638685.1	PAX6	ENSG00000007372	paired box 6 Source HGNC Symbol Acc HGNC 8620
E07	UPFH1172934	ENST00000441888.7	POU5F1	ENSG00000204531	POU class 5 homeobox 1 Source HGNC Symbol Acc HGNC 9221
E08	UPFH0166089	ENST00000276594.2	PRDM14	ENSG00000147596	PR/SET domain 14 Source HGNC Symbol Acc HGNC 14001
E09	UPFH0137151	ENST00000414861.6	RIF1	ENSG00000080345	replication timing regulatory factor 1 Source HGNC Symbol Acc HGNC 23207
E10	UPFH0339564	ENST00000483130.1	SALL4	ENSG00000101115	spalt like transcription factor 4 Source HGNC Symbol Acc HGNC 15924
E11	UPFH0249109	ENST00000640036.1	SCN1A	ENSG00000144285	sodium voltage-gated channel alpha subunit 1 Source HGNC Symbol Acc HGNC 10585
E12	UPFH1132685	ENST00000515385.1	SMAD1	ENSG00000170365	SMAD family member 1 Source HGNC Symbol Acc HGNC 6767
F01	UPFH1132686	ENST00000585978.1	SMAD2	ENSG00000175387	SMAD family member 2 Source HGNC Symbol Acc HGNC 6768
F02	UPFH1132840	ENST00000439724.7	SMAD3	ENSG00000166949	SMAD family member 3 Source HGNC Symbol Acc HGNC 6769
F03	UPFH0589983	ENST00000570788.1	SOX15	ENSG00000129194	SRY-box 15 Source HGNC Symbol Acc HGNC 11196
F04	UPFH1132969	ENST00000297316.5	SOX17	ENSG00000164736	SRY-box 17 Source HGNC Symbol Acc HGNC 18122
F05	UPFH0376428	ENST00000325404.3	SOX2	ENSG00000181449	SRY-box 2 Source HGNC Symbol Acc HGNC 11195
F06	UPFH0471731	ENST00000370536.4	SOX3	ENSG00000134595	SRY-box 3 Source HGNC Symbol Acc HGNC 11199
F07	UPFH1133616	ENST00000304501.2	SOX7	ENSG00000171056	SRY-box 7 Source HGNC Symbol Acc HGNC 18196
F08	UPFH0531262	ENST00000404395.3	STAT3	ENSG00000168610	signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364
F09	UPFH0553481	ENST00000296946.6	TBXT	ENSG00000164458	T-box transcription factor T Source HGNC Symbol Acc HGNC 11515
F10	UPFH0076430	ENST00000529622.1	TAGLN	ENSG00000149591	transgelin Source HGNC Symbol Acc HGNC 11553

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH0064880	ENST00000371884.6	TAL1	ENSG00000162367	TAL bHLH transcription factor 1, erythroid differentiation factor Source HGNC Symbol Acc HGNC 11556
F12	UPFH0600142	ENST00000355962.5	TAT	ENSG00000198650	tyrosine aminotransferase Source HGNC Symbol Acc HGNC 11573
G01	UPFH0011501	ENST00000349155.7	TBX3	ENSG00000135111	T-box 3 Source HGNC Symbol Acc HGNC 11602
G02	UPFH1132708	ENST00000262965.10	TCF3	ENSG00000071564	transcription factor 3 Source HGNC Symbol Acc HGNC 11633
G03	UPFH0040211	ENST00000556450.5	TCL1A	ENSG00000100721	T cell leukemia/lymphoma 1A Source NCBI gene Acc 8115
G04	UPFH0362567	ENST00000471721.1	TDGF1	ENSG00000241186	teratocarcinoma-derived growth factor 1 Source HGNC Symbol Acc HGNC 11701
G05	UPFH1132711	ENST00000380036.9	TEK	ENSG00000120156	TEK receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11724
G06	UPFH0248987	ENST00000310581.9	TERT	ENSG00000164362	telomerase reverse transcriptase Source HGNC Symbol Acc HGNC 11730
G07	UPFH0206635	ENST00000303596.2	THAP11	ENSG00000168286	THAP domain containing 11 Source HGNC Symbol Acc HGNC 23194
G08	UPFH0329064	ENST00000528295.5	THY1	ENSG00000154096	Thy-1 cell surface antigen Source HGNC Symbol Acc HGNC 11801
G09	UPFH0562217	ENST00000597995.1	TRIM28	ENSG00000130726	tripartite motif containing 28 Source HGNC Symbol Acc HGNC 16384
G10	UPFH1133615	ENST00000304477.3	UTF1	ENSG00000171794	undifferentiated embryonic cell transcription factor 1 Source HGNC Symbol Acc HGNC 12634
G11	UPFH0538154	ENST00000326866.5	ZFP42	ENSG00000179059	ZFP42 zinc finger protein Source HGNC Symbol Acc HGNC 30949
G12	UPFH0310383	ENST00000459724.1	ZFX	ENSG00000005889	zinc finger protein X-linked Source HGNC Symbol Acc HGNC 12869
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.

Trademarks: QIAGEN®, LNA®, QuantiNova®, Sample to Insight® (QIAGEN Group); SYBR® (Life Technologies Corp.). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

09/2019 © 2019 QIAGEN, all rights reserved.