

# QuantiNova® LNA® Probe PCR Focus Panels (96-Well Format and 384-Well [4 x 96] Format)

## Human Adipogenesis

Cat. no. 249955 UPHS-049ZA

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 (96-well): QuantiNova LNA Probe PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. 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	ACACB	ADIG	ADIPOQ	ADRB2	AGT	ANGPT2	AXIN1	BMP2	BMP4	BMP7	CCND1	CDK4
B	CDKN1A	CDKN1B	CEBPA	CEBPB	CEBPD	CFD	CREB1	DDIT3	DIO2	DKK1	DLK1	E2F1
C	EGR2	FABP4	FASN	FGF1	FGF10	FGF2	FOXC2	FO XO1	GATA2	GATA3	HES1	INSR
D	IRS1	IRS2	JUN	KLF15	KLF2	KLF3	KLF4	LEP	LIPE	LMNA	LPL	LRP5
E	MAPK14	NCOA2	NCOR2	NR0B2	NR1H3	NRF1	PPARA	PPARD	PPARG	PPARGC1A	PPARGC1B	PRDM16
F	RB1	RETN	RUNX1T1	RXRA	SFRP1	SFRP5	SHH	SIRT1	SIRT2	SIRT3	SLC2A4	SRC
G	SREBF1	TAZ	TCF7L2	TSC22D3	TWIST1	UCP1	VDR	WNT1	WNT10B	WNT3A	WNT5A	WNT5B
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	UPFH0129563	ENST00000396233.4	ACACB	ENSG00000076555	acetyl-CoA carboxylase beta Source HGNC Symbol Acc HGNC 85
A02	UPFH0134487	ENST00000537425.2	ADIG	ENSG00000182035	adipogenin Source HGNC Symbol Acc HGNC 28606
A03	UPFH1132772	ENST00000320741.7	ADIPOQ	ENSG00000181092	adiponectin, C1Q and collagen domain containing Source HGNC Symbol Acc HGNC 13633
A04	UPFH0552004	ENST00000305988.5	ADRB2	ENSG00000169252	adrenoceptor beta 2 Source HGNC Symbol Acc HGNC 286
A05	UPFH1132773	ENST00000366667.5	AGT	ENSG00000135744	angiotensinogen Source HGNC Symbol Acc HGNC 333
A06	UPFH0272158	ENST00000325203.9	ANGPT2	ENSG00000091879	angiopoietin 2 Source HGNC Symbol Acc HGNC 485
A07	UPFH1132262	ENST00000262320.8	AXIN1	ENSG00000103126	axin 1 Source HGNC Symbol Acc HGNC 903
A08	UPFH1132780	ENST00000378827.5	BMP2	ENSG00000125845	bone morphogenetic protein 2 Source HGNC Symbol Acc HGNC 1069
A09	UPFH0443169	ENST00000558984.1	BMP4	ENSG00000125378	bone morphogenetic protein 4 Source HGNC Symbol Acc HGNC 1071
A10	UPFH1132781	ENST00000433911.1	BMP7	ENSG00000101144	bone morphogenetic protein 7 Source HGNC Symbol Acc HGNC 1074
A11	UPFH0430337	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
A12	UPFH0291148	ENST00000549606.5	CDK4	ENSG00000135446	cyclin dependent kinase 4 Source HGNC Symbol Acc HGNC 1773
B01	UPFH0312181	ENST00000244741.9	CDKN1A	ENSG00000124762	cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784
B02	UPFH1132964	ENST00000228872.9	CDKN1B	ENSG00000111276	cyclin dependent kinase inhibitor 1B Source HGNC Symbol Acc HGNC 1785
B03	UPFH0223943	ENST00000498907.3	CEBPA	ENSG00000245848	CCAAT enhancer binding protein alpha Source HGNC Symbol Acc HGNC 1833
B04	UPFH0202295	ENST00000303004.4	CEBPB	ENSG00000172216	CCAAT enhancer binding protein beta Source HGNC Symbol Acc HGNC 1834
B05	UPFH0348961	ENST00000408965.3	CEBPD	ENSG00000221869	CCAAT enhancer binding protein delta Source HGNC Symbol Acc HGNC 1835
B06	UPFH0268589	ENST00000327726.10	CFD	ENSG00000197766	complement factor D Source HGNC Symbol Acc HGNC 2771
B07	UPFH0199960	ENST00000480189.5	CREB1	ENSG00000118260	cAMP responsive element binding protein 1 Source HGNC Symbol Acc HGNC 2345
B08	UPFH0523891	ENST00000346473.7	DDIT3	ENSG00000175197	DNA damage inducible transcript 3 Source HGNC Symbol Acc HGNC 2726
B09	UPFH0086774	ENST00000557125.1	DIO2	ENSG00000211448	iodothyronine deiodinase 2 Source HGNC Symbol Acc HGNC 2884
B10	UPFH1132868	ENST00000373970.4	DKK1	ENSG00000107984	dickkopf WNT signaling pathway inhibitor 1 Source HGNC Symbol Acc HGNC 2891
B11	UPFH0142974	ENST00000556051.1	DLK1	ENSG00000185559	delta like non-canonical Notch ligand 1 Source HGNC Symbol Acc HGNC 2907
B12	UPFH1132375	ENST00000343380.6	E2F1	ENSG00000101412	E2F transcription factor 1 Source HGNC Symbol Acc HGNC 3113
C01	UPFH0318489	ENST00000242480.4	EGR2	ENSG00000122877	early growth response 2 Source HGNC Symbol Acc HGNC 3239
C02	UPFH0038464	ENST00000256104.4	FABP4	ENSG00000170323	fatty acid binding protein 4 Source HGNC Symbol Acc HGNC 3559
C03	UPFH0422393	ENST00000635197.1	FASN	ENSG00000169710	fatty acid synthase Source HGNC Symbol Acc HGNC 3594
C04	UPFH0087975	ENST00000612258.4	FGF1	ENSG00000113578	fibroblast growth factor 1 Source HGNC Symbol Acc HGNC 3665
C05	UPFH0363315	ENST00000264664.4	FGF10	ENSG00000070193	fibroblast growth factor 10 Source HGNC Symbol Acc HGNC 3666
C06	UPFH0613093	ENST00000264498.7	FGF2	ENSG00000138685	fibroblast growth factor 2 Source HGNC Symbol Acc HGNC 3676
C07	UPFH0518784	ENST00000649859.1	FOXC2	ENSG00000176692	forkhead box C2 Source HGNC Symbol Acc HGNC 3801
C08	UPFH0401417	ENST00000379561.6	FOXO1	ENSG00000150907	forkhead box O1 Source HGNC Symbol Acc HGNC 3819
C09	UPFH0034415	ENST00000430265.6	GATA2	ENSG00000179348	GATA binding protein 2 Source HGNC Symbol Acc HGNC 4171
C10	UPFH1132416	ENST00000645492.1	GATA3	ENSG00000107485	GATA binding protein 3 Source HGNC Symbol Acc HGNC 4172
		ENST00000232		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH1132442	424.4	HES1	114315	hes family bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 5192
C12	UPFH0483358	ENST00000598216.1	INSR	ENSG00000171105	insulin receptor Source HGNC Symbol Acc HGNC 6091
D01	UPFH0592509	ENST00000305123.5	IRS1	ENSG00000169047	insulin receptor substrate 1 Source HGNC Symbol Acc HGNC 6125
D02	UPFH0575069	ENST00000375856.5	IRS2	ENSG00000185950	insulin receptor substrate 2 Source HGNC Symbol Acc HGNC 6126
D03	UPFH0569765	ENST00000371222.3	JUN	ENSG00000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
D04	UPFH0246738	ENST00000296233.4	KLF15	ENSG00000163884	Kruppel like factor 15 Source HGNC Symbol Acc HGNC 14536
D05	UPFH0347180	ENST00000592003.1	KLF2	ENSG00000127528	Kruppel like factor 2 Source HGNC Symbol Acc HGNC 6347
D06	UPFH0247631	ENST00000514033.1	KLF3	ENSG00000109787	Kruppel like factor 3 Source HGNC Symbol Acc HGNC 16516
D07	UPFH0017730	ENST00000374672.5	KLF4	ENSG00000136826	Kruppel like factor 4 Source HGNC Symbol Acc HGNC 6348
D08	UPFH1132519	ENST00000308868.5	LEP	ENSG00000174697	leptin Source HGNC Symbol Acc HGNC 6553
D09	UPFH0552904	ENST00000601189.1	LIPE	ENSG00000079435	lipase E, hormone sensitive type Source HGNC Symbol Acc HGNC 6621
D10	UPFH0218092	ENST00000368299.7	LMNA	ENSG00000160789	lamin A/C Source HGNC Symbol Acc HGNC 6636
D11	UPFH1132523	ENST00000311322.10	LPL	ENSG00000175445	lipoprotein lipase Source HGNC Symbol Acc HGNC 6677
D12	UPFH1132877	ENST00000294304.12	LRP5	ENSG00000162337	LDL receptor related protein 5 Source HGNC Symbol Acc HGNC 6697
E01	UPFH0068247	ENST00000229795.7	MAPK14	ENSG00000112062	mitogen-activated protein kinase 14 Source HGNC Symbol Acc HGNC 6876
E02	UPFH0401168	ENST00000518363.2	NCOA2	ENSG00000140396	nuclear receptor coactivator 2 Source HGNC Symbol Acc HGNC 7669
E03	UPFH0442832	ENST00000443451.6	NCOR2	ENSG00000196498	nuclear receptor corepressor 2 Source HGNC Symbol Acc HGNC 7673
E04	UPFH1125145	ENST00000254227.4	NROB2	ENSG00000131910	nuclear receptor subfamily 0 group B member 2 Source HGNC Symbol Acc HGNC 7961
E05	UPFH0556560	ENST00000616973.4	NR1H3	ENSG00000025434	nuclear receptor subfamily 1 group H member 3 Source HGNC Symbol Acc HGNC 7966
E06	UPFH0153972	ENST00000311967.6	NRF1	ENSG00000106459	nuclear respiratory factor 1 Source HGNC Symbol Acc HGNC 7996
E07	UPFH0327373	ENST00000262735.9	PPARA	ENSG00000186951	peroxisome proliferator activated receptor alpha Source HGNC Symbol Acc HGNC 9232
E08	UPFH1132629	ENST00000448077.6	PPARD	ENSG00000112033	peroxisome proliferator activated receptor delta Source HGNC Symbol Acc HGNC 9235
E09	UPFH0284890	ENST00000477039.5	PPARG	ENSG00000132170	peroxisome proliferator activated receptor gamma Source HGNC Symbol Acc HGNC 9236
E10	UPFH0403608	ENST00000264867.7	PPARGC1A	ENSG00000109819	PPARG coactivator 1 alpha Source HGNC Symbol Acc HGNC 9237
E11	UPFH0004689	ENST00000394320.7	PPARGC1B	ENSG00000155846	PPARG coactivator 1 beta Source HGNC Symbol Acc HGNC 30022
E12	UPFH0153671	ENST00000378391.6	PRDM16	ENSG00000142611	PR/SET domain 16 Source HGNC Symbol Acc HGNC 14000
F01	UPFH0001483	ENST00000267163.5	RB1	ENSG00000139687	RB transcriptional corepressor 1 Source HGNC Symbol Acc HGNC 9884
F02	UPFH0306767	ENST00000629642.1	RETN	ENSG00000104918	resistin Source HGNC Symbol Acc HGNC 20389
F03	UPFH0214711	ENST00000523290.5	RUNX1T1	ENSG00000079102	RUNX1 translocation partner 1 Source HGNC Symbol Acc HGNC 1535
F04	UPFH0039313	ENST00000356384.4	RXRA	ENSG00000186350	retinoid X receptor alpha Source HGNC Symbol Acc HGNC 10477
F05	UPFH1132676	ENST00000220772.8	SFRP1	ENSG00000104332	secreted frizzled related protein 1 Source HGNC Symbol Acc HGNC 10776
F06	UPFH0464418	ENST00000266066.4	SFRP5	ENSG00000120057	secreted frizzled related protein 5 Source HGNC Symbol Acc HGNC 10779
F07	UPFH0252724	ENST00000430104.5	SHH	ENSG00000164690	sonic hedgehog signaling molecule Source HGNC Symbol Acc HGNC 10848
F08	UPFH0388476	ENST00000212015.11	SIRT1	ENSG00000096717	sirtuin 1 Source HGNC Symbol Acc HGNC 14929
F09	UPFH1132681	ENST00000392081.6	SIRT2	ENSG00000068903	sirtuin 2 Source HGNC Symbol Acc HGNC 10886
F10	UPFH0466428	ENST00000532956.5	SIRT3	ENSG00000142082	sirtuin 3 Source HGNC Symbol Acc HGNC 14931

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH0163622	ENST00000317370.12	SLC2A4	ENSG00000181856	solute carrier family 2 member 4 Source HGNC Symbol Acc HGNC 11009
F12	UPFH0308412	ENST00000472968.1	SRC	ENSG00000197122	SRC proto-oncogene, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11283
G01	UPFH0380685	ENST00000490796.1	SREBF1	ENSG00000072310	sterol regulatory element binding transcription factor 1 Source HGNC Symbol Acc HGNC 11289
G02	UPFH0013162	ENST00000617701.5	TAZ	ENSG00000102125	tafazzin Source HGNC Symbol Acc HGNC 11577
G03	UPFH0509582	ENST00000636585.1	TCF7L2	ENSG00000148737	transcription factor 7 like 2 Source HGNC Symbol Acc HGNC 11641
G04	UPFH0607629	ENST00000372390.8	TSC22D3	ENSG00000157514	TSC22 domain family member 3 Source HGNC Symbol Acc HGNC 3051
G05	UPFH1132743	ENST00000242261.6	TWIST1	ENSG00000122691	twist family bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 12428
G06	UPFH0141236	ENST00000262999.4	UCP1	ENSG00000109424	uncoupling protein 1 Source HGNC Symbol Acc HGNC 12517
G07	UPFH0608623	ENST00000550325.5	VDR	ENSG00000111424	vitamin D receptor Source HGNC Symbol Acc HGNC 12679
G08	UPFH0344484	ENST00000293549.3	WNT1	ENSG00000125084	Wnt family member 1 Source HGNC Symbol Acc HGNC 12774
G09	UPFH0490750	ENST00000301061.9	WNT10B	ENSG00000169884	Wnt family member 10B Source HGNC Symbol Acc HGNC 12775
G10	UPFH0486867	ENST00000284523.2	WNT3A	ENSG00000154342	Wnt family member 3A Source HGNC Symbol Acc HGNC 15983
G11	UPFH0355989	ENST00000264634.8	WNT5A	ENSG00000114251	Wnt family member 5A Source HGNC Symbol Acc HGNC 12784
G12	UPFH1132764	ENST00000537031.5	WNT5B	ENSG00000111186	Wnt family member 5B Source HGNC Symbol Acc HGNC 16265
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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