

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

## Rat Aging

Cat. no. 249955 UPRN-178ZA

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
<b>A</b>	Angel2	Anxa3	Anxa5	Arid1a	Arl6ip6	Bub1b	C1qa	C1qb	C1qc	C1s	C3	C3ar1
<b>B</b>	C4a	C4b	C5ar1	Calb1	Casp1	Ccr1	Cd14	Cd163	Cdkn1c	Cfh	Cfhr1	Clu
<b>C</b>	Col1a1	Cx3cl1	Cxcl16	Elavl1	Emil1	AABR0705853 9.1	Fbxl16	Fcer1g	Fcgbp	Fcgr1a	Fcgr2a	Fcgr2b
<b>D</b>	Foxo1	Gfap	Hsf1	Jakmip3	Lmna	Lmnb1	Lmnb2	Elp3	Lsm5	Lif	Lyz1	Mbp
<b>E</b>	Mrpl43	Ndufb11	Panx1	Pdcd6	Phf3	Polrmt	Pot1	Rap1a	Wrm	Rnf144b	S100a8	S100a9
<b>F</b>	Scn2b	Sirt3	Sirt6	Smad2	AABR0705351 6.1	Terf1	Terf2	Tfam	Tfb1m	Tfb2m	Tinf2	Tlr2
<b>G</b>	Tlr4	Tmem135	Tmem33	Tollip	Tpp1	Txnip	Vps13c	LOC1083480 48	Zbtb10	Zfp9	Zfr	Zmpste24
<b>H</b>	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFR1065110	ENSRNOT0000005084.7	Angel2	ENSRNOG0000003795	angel homolog 2 Source RGD Symbol Acc 1305056
A02	UPFR1025519	ENSRNOT00000068134.3	Anxa3	ENSRNOG0000002045	annexin A3 Source RGD Symbol Acc 2119
A03	UPFR1079810	ENSRNOT00000019554.6	Anxa5	ENSRNOG0000014453	annexin A5 Source RGD Symbol Acc 2120
A04	UPFR1028311	ENSRNOT00000009173.7	Arid1a	ENSRNOG0000006137	AT-rich interaction domain 1A Source RGD Symbol Acc 1310500
A05	UPFR1080045	ENSRNOT00000006774.6	Arl6ip6	ENSRNOG0000005074	ADP ribosylation factor like GTPase 6 interacting protein 6 Source RGD Symbol Acc 1564819
A06	UPFR1032506	ENSRNOT00000010406.6	Bub1b	ENSRNOG0000007906	BUB1 mitotic checkpoint serine/threonine kinase B Source RGD Symbol Acc 619791
A07	UPFR1057714	ENSRNOT00000017385.6	C1qa	ENSRNOG0000012807	complement C1q A chain Source RGD Symbol Acc 1306716
A08	UPFR1073407	ENSRNOT00000017060.6	C1qb	ENSRNOG0000012749	complement C1q B chain Source RGD Symbol Acc 2229
A09	UPFR1085215	ENSRNOT00000017065.5	C1qc	ENSRNOG0000012804	complement C1q C chain Source RGD Symbol Acc 1306828
A10	UPFR1016697	ENSRNOT00000016330.5	C1s	ENSRNOG0000011971	complement C1s Source RGD Symbol Acc 619983
A11	UPFR1069924	ENSRNOT00000075494.1	C3	ENSRNOG0000046834	complement C3 Source RGD Symbol Acc 2232
A12	UPFR1099740	ENSRNOT00000012216.3	C3ar1	ENSRNOG0000009211	complement C3a receptor 1 Source RGD Symbol Acc 620537
B01	UPFR1033991	ENSRNOT00000072377.2	C4a	ENSRNOG0000047657	complement C4A Source RGD Symbol Acc 620005
B02	UPFR1050774	ENSRNOT00000031704.6	C4b	ENSRNOG0000030729	complement C4B (Chido blood group) Source RGD Symbol Acc 1591983
B03	UPFR1103523	ENSRNOT00000073034.2	C5ar1	ENSRNOG0000047800	complement C5a receptor 1 Source RGD Symbol Acc 70553
B04	UPFR1074049	ENSRNOT00000010845.4	Calb1	ENSRNOG0000007456	calbindin 1 Source RGD Symbol Acc 69340
B05	UPFR1052168	ENSRNOT00000009993.6	Casp1	ENSRNOG0000007372	caspase 1 Source RGD Symbol Acc 2274
B06	UPFR1018077	ENSRNOT00000008772.4	Ccr1	ENSRNOG0000006715	C-C motif chemokine receptor 1 Source RGD Symbol Acc 708446
B07	UPFR1097993	ENSRNOT00000023977.6	Cd14	ENSRNOG0000017819	CD14 molecule Source RGD Symbol Acc 620588
B08	UPFR1120522	ENSRNOT00000068407.1	Cd163	ENSRNOG0000010253	CD163 molecule Source RGD Symbol Acc 1310382
B09	UPFR1068211	ENSRNOT00000078944.1	Cdkn1c	ENSRNOG0000059500	cyclin-dependent kinase inhibitor 1C Source RGD Symbol Acc 727892
B10	UPFR1090866	ENSRNOT00000060111.4	Cfh	ENSRNOG0000030715	complement factor H Source RGD Symbol Acc 620428
B11	UPFR1052753	ENSRNOT00000079040.1	Cfhr1	ENSRNOG0000042901	complement factor H-related 1 Source RGD Symbol Acc 1310510
B12	UPFR1050205	ENSRNOT00000091612.1	Clu	ENSRNOG0000016460	clusterin Source RGD Symbol Acc 3907
C01	UPFR1053469	ENSRNOT00000005311.6	Col1a1	ENSRNOG0000003897	collagen type I alpha 1 chain Source RGD Symbol Acc 61817
C02	UPFR1070853	ENSRNOT00000022128.5	Cx3cl1	ENSRNOG0000016326	C-X3-C motif chemokine ligand 1 Source RGD Symbol Acc 620458
C03	UPFR1076114	ENSRNOT00000032926.4	Cxcl16	ENSRNOG0000026647	C-X-C motif chemokine ligand 16 Source RGD Symbol Acc 1562928
C04	UPFR1019416	ENSRNOT00000001415.6	Elavl1	ENSRNOG0000001069	ELAV like RNA binding protein 1 Source RGD Symbol Acc 1308649
C05	UPFR1117859	ENSRNOT00000071863.3	Eml1	ENSRNOG0000043143	EMAP like 1 Source RGD Symbol Acc 1306374
C06	UPFR1102114	ENSRNOT00000000206.7	AABR07058539.1	ENSRNOG0000000190	
C07	UPFR1120611	ENSRNOT00000039777.1	Fbxl16	ENSRNOG0000022248	F-box and leucine-rich repeat protein 16 Source RGD Symbol Acc 1309127
C08	UPFR1085926	ENSRNOT00000029179.3	Fcer1g	ENSRNOG0000024159	Fc fragment of IgE receptor Ig Source RGD Symbol Acc 2599
C09	UPFR1091556	ENSRNOT00000057122.4	Fcgbp	ENSRNOG0000019129	Fc fragment of IgG binding protein Source RGD Symbol Acc 2313189
C10	UPFR1045164	ENSRNOT00000082450.1	Fcgr1a	ENSRNOG0000021199	Fc fragment of IgG receptor Ia Source RGD Symbol Acc 1309912
		ENSRNOT000000		ENSRNOG00	low affinity immunoglobulin gamma Fc region receptor III-like Source RGD

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1036757	091821.1	Fcgr2a	000046663	Symbol Acc 6490558
C12	UPFR1121617	ENSRNOT00000058497.3	Fcgr2b	ENSRNOG0000046452	Fc fragment of IgG receptor IIb Source RGD Symbol Acc 631331
D01	UPFR1088269	ENSRNOT00000018244.5	Foxo1	ENSRNOG0000013397	forkhead box O1 Source RGD Symbol Acc 620283
D02	UPFR1036658	ENSRNOT00000034401.5	Gfap	ENSRNOG0000002919	glial fibrillary acidic protein Source RGD Symbol Acc 2679
D03	UPFR1025762	ENSRNOT00000050108.3	Hsf1	ENSRNOG00000021732	heat shock transcription factor 1 Source RGD Symbol Acc 620913
D04	UPFR1099350	ENSRNOT00000030461.5	Jakmip3	ENSRNOG0000027590	janus kinase and microtubule interacting protein 3 Source RGD Symbol Acc 1307177
D05	UPFR1040557	ENSRNOT00000026705.6	Lmna	ENSRNOG0000019638	lamin A/C Source RGD Symbol Acc 620456
D06	UPFR1037053	ENSRNOT00000019351.5	Lmnb1	ENSRNOG0000013774	lamin B1 Source RGD Symbol Acc 620522
D07	UPFR1084639	ENSRNOT00000022336.8	Lmnb2	ENSRNOG0000025742	lamin B2 Source RGD Symbol Acc 1563803
D08	UPFR1107929	ENSRNOT00000019262.7	Elp3	ENSRNOG0000014291	elongator acetyltransferase complex subunit 3 Source RGD Symbol Acc 2324506
D09	UPFR1077470	ENSRNOT00000065625.1	Lsm5	ENSRNOG0000042126	LSM5 homolog, U6 small nuclear RNA and mRNA degradation associated Source RGD Symbol Acc 1308655
D10	UPFR1089676	ENSRNOT00000047752.2	Ltf	ENSRNOG0000031779	lactotransferrin Source RGD Symbol Acc 1305445
D11	UPFR1098048	ENSRNOT00000021901.5	Lyz1	ENSRNOG0000016295	lysozyme-like 1 Source RGD Symbol Acc 1559869
D12	UPFR1041443	ENSRNOT00000058296.5	Mbp	ENSRNOG0000016516	myelin basic protein Source RGD Symbol Acc 3054
E01	UPFR1025212	ENSRNOT00000020020.5	Mrpl43	ENSRNOG0000014890	mitochondrial ribosomal protein L43 Source RGD Symbol Acc 1307593
E02	UPFR1109453	ENSRNOT00000011183.4	Ndufb11	ENSRNOG0000008329	NADH ubiquinone oxidoreductase subunit B11 Source RGD Symbol Acc 1563698
E03	UPFR1020342	ENSRNOT00000013577.5	Panx1	ENSRNOG0000010060	Pannexin 1 Source RGD Symbol Acc 735204
E04	UPFR1079274	ENSRNOT00000019735.5	Pdcd6	ENSRNOG0000014485	programmed cell death 6 Source RGD Symbol Acc 1311239
E05	UPFR1046838	ENSRNOT00000015638.5	Phf3	ENSRNOG0000011756	PHD finger protein 3 Source RGD Symbol Acc 1304925
E06	UPFR1017177	ENSRNOT00000039232.5	Polrmt	ENSRNOG0000024879	RNA polymerase mitochondrial Source RGD Symbol Acc 1304599
E07	UPFR1059977	ENSRNOT00000079130.1	Pot1	ENSRNOG0000019986	protection of telomeres 1 Source RGD Symbol Acc 1562696
E08	UPFR1051806	ENSRNOT00000047836.4	Rap1a	ENSRNOG0000032463	RAP1A, member of RAS oncogene family Source RGD Symbol Acc 1359694
E09	UPFR1120697	ENSRNOT00000058805.5	Wrn	ENSRNOG0000015440	Werner syndrome RecQ like helicase Source RGD Symbol Acc 1564788
E10	UPFR1090581	ENSRNOT00000082733.1	Rnf144b	ENSRNOG0000016123	ring finger protein 144B Source RGD Symbol Acc 1308856
E11	UPFR1086842	ENSRNOT00000015473.3	S100a8	ENSRNOG0000011557	S100 calcium binding protein A8 Source RGD Symbol Acc 620265
E12	UPFR1029883	ENSRNOT00000015351.5	S100a9	ENSRNOG0000011483	S100 calcium binding protein A9 Source RGD Symbol Acc 620267
F01	UPFR1041192	ENSRNOT00000021819.3	Scn2b	ENSRNOG0000016221	sodium voltage-gated channel beta subunit 2 Source RGD Symbol Acc 3633
F02	UPFR1061064	ENSRNOT00000018861.6	Sirt3	ENSRNOG0000013828	sirtuin 3 Source RGD Symbol Acc 1308374
F03	UPFR1073178	ENSRNOT00000008758.5	Sirt6	ENSRNOG0000006393	sirtuin 6 Source RGD Symbol Acc 1305216
F04	UPFR1057367	ENSRNOT00000046847.4	Smad2	ENSRNOG0000018140	SMAD family member 2 Source RGD Symbol Acc 3031
F05	UPFR1037406	ENSRNOT00000074392.2	AABR07053516.1	ENSRNOG0000050552	
F06	UPFR1097355	ENSRNOT00000049741.2	Terf1	ENSRNOG0000007291	telomeric repeat binding factor 1 Source RGD Symbol Acc 1311574
F07	UPFR1097812	ENSRNOT00000027695.6	Terf2	ENSRNOG0000020435	telomeric repeat binding factor 2 Source RGD Symbol Acc 1310881
F08	UPFR1017012	ENSRNOT00000000753.4	Tfam	ENSRNOG0000000613	transcription factor A, mitochondrial Source RGD Symbol Acc 620682
F09	UPFR1050124	ENSRNOT00000078768.1	Tfb1m	ENSRNOG0000056223	transcription factor B1, mitochondrial Source RGD Symbol Acc 727795
F10	UPFR1017504	ENSRNOT00000003618.3	Tfb2m	ENSRNOG0000002695	transcription factor B2, mitochondrial Source RGD Symbol Acc 1307091

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1103806	ENSRNOT00000027362.5	Tinf2	ENSRNOG0000020189	TERF1 interacting nuclear factor 2 Source RGD Symbol Acc 1359192
F12	UPFR1061984	ENSRNOT00000013025.4	Tlr2	ENSRNOG0000009822	toll-like receptor 2 Source RGD Symbol Acc 735138
G01	UPFR1020675	ENSRNOT00000014020.3	Tlr4	ENSRNOG0000010522	toll-like receptor 4 Source RGD Symbol Acc 3870
G02	UPFR1026929	ENSRNOT00000022578.5	Tmem135	ENSRNOG0000016815	transmembrane protein 135 Source RGD Symbol Acc 1309948
G03	UPFR1089015	ENSRNOT00000003128.3	Tmem33	ENSRNOG0000002254	transmembrane protein 33 Source RGD Symbol Acc 708371
G04	UPFR1079309	ENSRNOT00000046344.3	Tollip	ENSRNOG0000019861	toll interacting protein Source RGD Symbol Acc 1304676
G05	UPFR1045365	ENSRNOT00000026280.4	Tpp1	ENSRNOG0000019212	tripeptidyl peptidase 1 Source RGD Symbol Acc 621296
G06	UPFR1099909	ENSRNOT00000028793.6	Txnip	ENSRNOG0000021201	thioredoxin interacting protein Source RGD Symbol Acc 620886
G07	UPFR1048462	ENSRNOT00000057522.4	Vps13c	ENSRNOG0000030213	vacuolar protein sorting 13 homolog C Source RGD Symbol Acc 1560364
G08	UPFR1091553	ENSRNOT00000015986.7	LOC108348048	ENSRNOG000000195	von Willebrand factor A domain-containing protein 5A Source RGD Symbol Acc 11476240
G09	UPFR1109571	ENSRNOT00000081553.1	Zbtb10	ENSRNOG00000061862	zinc finger and BTB domain containing 10 Source RGD Symbol Acc 708377
G10	UPFR1101876	ENSRNOT00000079053.1	Zfp9	ENSRNOG0000006726	zinc finger protein 9 Source NCBI gene Acc 100158232
G11	UPFR1106623	ENSRNOT00000087636.1	Zfr	ENSRNOG0000011627	zinc finger RNA binding protein Source RGD Symbol Acc 1311890
G12	UPFR1070874	ENSRNOT00000016410.5	Zmpste24	ENSRNOG0000012054	zinc metallopeptidase STE24 Source RGD Symbol Acc 1305570
H01	UPFR1132952	ENSRNOT00000080216.1	Actb	ENSRNOG0000034254	actin, beta Source RGD Symbol Acc 628837
H02	UPFR1132953	ENSRNOT00000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	UPFR1132959	ENSRNOT00000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	UPFR1018740	ENSRNOT00000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	UPFR1132958	ENSRNOT00000018820.5	Rplp1	ENSRNOG0000013874	ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774
H06	UPFR1126610	UPL_RGDC	RGDC	UPL_RGDC	Rat 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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