

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

## Rat Neurogenesis

Cat. no. 249955 UPRN-404ZA

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	Ache	Adora1	Adora2a	Alk	Apbb1	Apoe	App	Artn	Ascl1	Bcl2	Bdnf	Bmp2
B	Bmp4	Bmp8a	Cdk5r1	Cdk5rap2	Chat	Chrm2	Creb1	Cxcl1	Dcx	Dlg4	Dll1	Drd2
C	Dvl3	Efnb1	Egf	AABR0705853 9.1	ErbB2	Fgf2	Fina	Gdnf	Gpi	Grin1	Hdac4	Hes1
D	Hey1	Hey2	Heyl	Il3	Lif	Map2	Mdk	Mef2c	Kmt2a	Ndn	LOC1009099 13	Neurod1
E	Neurog1	Neurog2	Nf1	Nog	Notch1	Notch2	Nrcam	Nrg1	Nrp1	Nrp2	Ntf3	Ntn1
F	Olig2	Pafah1b1	Pard3	Pax2	Pax3	Pax6	Pou3f3	Pou4f1	Ptn	Rac1	Robo1	Rtn4
G	S100a6	S100b	Shh	Slit2	Sod1	Sox2	Sox8	Stat3	Tgfb1	Th	Tnr	Vegfa
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	QIC	QIC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFR1120683	ENSRNOT00000075504.2	Ache	ENSRNOG0000050841	acetylcholinesterase Source RGD Symbol Acc 69313
A02	UPFR1120851	ENSRNOT00000078993.1	Adora1	ENSRNOG0000003442	adenosine A1 receptor Source RGD Symbol Acc 2048
A03	UPFR1086017	ENSRNOT00000001759.3	Adora2a	ENSRNOG0000001302	adenosine A2a receptor Source RGD Symbol Acc 2049
A04	UPFR1096977	ENSRNOT00000011630.6	Alk	ENSRNOG0000008683	ALK receptor tyrosine kinase Source RGD Symbol Acc 628622
A05	UPFR1057704	ENSRNOT00000024402.4	Apbb1	ENSRNOG0000018020	amyloid beta precursor protein binding family B member 1 Source RGD Symbol Acc 2122
A06	UPFR1073431	ENSRNOT00000091574.1	Apoe	ENSRNOG0000018454	apolipoprotein E Source RGD Symbol Acc 2138
A07	UPFR1021296	ENSRNOT00000044081.5	App	ENSRNOG0000006997	amyloid beta precursor protein Source RGD Symbol Acc 2139
A08	UPFR1059169	ENSRNOT00000026852.3	Artn	ENSRNOG0000019842	artemin Source RGD Symbol Acc 621427
A09	UPFR1051721	ENSRNOT00000005674.5	Ascl1	ENSRNOG0000004294	achaete-scute family bHLH transcription factor 1 Source RGD Symbol Acc 71010
A10	UPFR1082998	ENSRNOT00000003768.2	Bcl2	ENSRNOG0000002791	BCL2, apoptosis regulator Source RGD Symbol Acc 2199
A11	UPFR1014257	ENSRNOT00000078543.1	Bdnf	ENSRNOG0000047466	brain-derived neurotrophic factor Source RGD Symbol Acc 2202
A12	UPFR1023820	ENSRNOT00000028904.4	Bmp2	ENSRNOG0000021276	bone morphogenetic protein 2 Source RGD Symbol Acc 2211
B01	UPFR1013450	ENSRNOT00000083268.1	Bmp4	ENSRNOG0000009694	bone morphogenetic protein 4 Source RGD Symbol Acc 2213
B02	UPFR1055088	ENSRNOT00000045922.2	Bmp8a	ENSRNOG0000030155	bone morphogenetic protein 8a Source RGD Symbol Acc 1585858
B03	UPFR1112984	ENSRNOT00000031746.2	Cdk5r1	ENSRNOG0000021685	cyclin-dependent kinase 5 regulatory subunit 1 Source RGD Symbol Acc 629472
B04	UPFR1044989	ENSRNOT00000083340.1	Cdk5rap2	ENSRNOG0000005788	CDK5 regulatory subunit associated protein 2 Source RGD Symbol Acc 708451
B05	UPFR1120203	ENSRNOT00000080202.2	Chat	ENSRNOG0000025012	choline O-acetyltransferase Source RGD Symbol Acc 1304627
B06	UPFR1064805	ENSRNOT00000075341.2	Chrm2	ENSRNOG0000046972	cholinergic receptor, muscarinic 2 Source RGD Symbol Acc 620023
B07	UPFR1042088	ENSRNOT00000018326.5	Creb1	ENSRNOG0000013412	cAMP responsive element binding protein 1 Source RGD Symbol Acc 620218
B08	UPFR1056296	ENSRNOT00000003778.3	Cxcl1	ENSRNOG0000002802	C-X-C motif chemokine ligand 1 Source RGD Symbol Acc 619869
B09	UPFR1086409	ENSRNOT00000074322.1	Dcx	ENSRNOG0000047712	doublecortin Source RGD Symbol Acc 620670
B10	UPFR1051584	ENSRNOT00000068493.2	Dlg4	ENSRNOG0000018526	discs large MAGUK scaffold protein 4 Source RGD Symbol Acc 68424
B11	UPFR1058929	ENSRNOT00000080429.1	Dll1	ENSRNOG0000059984	delta like canonical Notch ligand 1 Source RGD Symbol Acc 70949
B12	UPFR1040837	ENSRNOT00000045944.5	Drd2	ENSRNOG0000008428	dopamine receptor D2 Source RGD Symbol Acc 2520
C01	UPFR1099456	ENSRNOT00000002323.6	Dvl3	ENSRNOG0000001708	dishevelled segment polarity protein 3 Source RGD Symbol Acc 1308834
C02	UPFR1117680	ENSRNOT00000009635.6	Efnb1	ENSRNOG0000006877	ephrin B1 Source RGD Symbol Acc 2540
C03	UPFR1045222	ENSRNOT00000087007.1	Egf	ENSRNOG0000053979	epidermal growth factor Source RGD Symbol Acc 2542
C04	UPFR1102114	ENSRNOT00000000206.7	AABR07058539.1	ENSRNOG0000000190	
C05	UPFR1024636	ENSRNOT00000009114.7	ErbB2	ENSRNOG0000006450	erb-b2 receptor tyrosine kinase 2 Source RGD Symbol Acc 2561
C06	UPFR1033121	ENSRNOT00000023388.5	Fgf2	ENSRNOG0000017392	fibroblast growth factor 2 Source RGD Symbol Acc 2609
C07	UPFR1022072	ENSRNOT00000079889.1	Flna	ENSRNOG0000054890	filamin A Source RGD Symbol Acc 1560614
C08	UPFR1111724	ENSRNOT00000041288.2	Gdnf	ENSRNOG0000012819	glial cell derived neurotrophic factor Source RGD Symbol Acc 2677
C09	UPFR1020266	ENSRNOT00000032613.4	Gpi	ENSRNOG0000023150	glucose-6-phosphate isomerase Source RGD Symbol Acc 2727
C10	UPFR1041053	ENSRNOT00000049297.3	Grin1	ENSRNOG0000011726	glutamate ionotropic receptor NMDA type subunit 1 Source RGD Symbol Acc 2736
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1016277	027622.6	Hdac4	000020372	histone deacetylase 4 Source RGD Symbol Acc 619979
C12	UPFR1076214	ENSRNOT0000002346.7	Hes1	ENSRNOG0000001720	hes family bHLH transcription factor 1 Source RGD Symbol Acc 62081
D01	UPFR1104855	ENSRNOT00000015537.7	Hey1	ENSRNOG00000011593	hes-related family bHLH transcription factor with YRPW motif 1 Source NCBI gene Acc 155437
D02	UPFR1069377	ENSRNOT00000018718.6	Hey2	ENSRNOG00000013364	hes-related family bHLH transcription factor with YRPW motif 2 Source RGD Symbol Acc 621405
D03	UPFR1097117	ENSRNOT00000020929.3	Heyl	ENSRNOG00000015318	hes-related family bHLH transcription factor with YRPW motif-like Source RGD Symbol Acc 1305022
D04	UPFR1073307	ENSRNOT00000031762.1	Il3	ENSRNOG00000026786	interleukin 3 Source RGD Symbol Acc 2897
D05	UPFR1017798	ENSRNOT00000009313.4	Lif	ENSRNOG0000007002	LIF, interleukin 6 family cytokine Source RGD Symbol Acc 620865
D06	UPFR1036990	ENSRNOT00000037974.6	Map2	ENSRNOG00000011841	microtubule-associated protein 2 Source RGD Symbol Acc 3044
D07	UPFR1113183	ENSRNOT00000033978.3	Mdk	ENSRNOG00000017560	midkine Source RGD Symbol Acc 69073
D08	UPFR1035243	ENSRNOT00000076239.1	Mef2c	ENSRNOG00000033134	myocyte enhancer factor 2C Source RGD Symbol Acc 1563119
D09	UPFR1042839	ENSRNOT00000020573.6	Kmf2a	ENSRNOG00000015133	lysine methyltransferase 2A Source RGD Symbol Acc 1586165
D10	UPFR1019559	ENSRNOT00000013468.6	Ndn	ENSRNOG00000010146	nedcin, MAGE family member Source RGD Symbol Acc 1310526
D11	UPFR1107475	ENSRNOT00000003984.5	LOC100909913	ENSRNOG0000002960	NDP, norrin cystine knot growth factor Source RGD Symbol Acc 1563968
D12	UPFR1051509	ENSRNOT00000007662.7	Neurod1	ENSRNOG0000005609	neuronal differentiation 1 Source RGD Symbol Acc 3165
E01	UPFR1036054	ENSRNOT00000015916.3	Neurog1	ENSRNOG00000022405	neurogenin 1 Source RGD Symbol Acc 3167
E02	UPFR1064801	ENSRNOT00000014570.4	Neurog2	ENSRNOG00000010972	neurogenin 2 Source RGD Symbol Acc 1309061
E03	UPFR1100816	ENSRNOT000000089538.1	Nf1	ENSRNOG00000013780	neurofibromin 1 Source RGD Symbol Acc 3168
E04	UPFR1059037	ENSRNOT00000032388.4	Nog	ENSRNOG00000023683	noggin Source RGD Symbol Acc 3183
E05	UPFR1044597	ENSRNOT00000026212.7	Notch1	ENSRNOG00000019322	notch 1 Source RGD Symbol Acc 3187
E06	UPFR1064592	ENSRNOT00000025718.4	Notch2	ENSRNOG00000018835	notch 2 Source RGD Symbol Acc 3188
E07	UPFR1059699	ENSRNOT000000083088.2	Nrcam	ENSRNOG00000004067	neuronal cell adhesion molecule Source RGD Symbol Acc 3209
E08	UPFR1017750	ENSRNOT00000038549.7	Nrg1	ENSRNOG00000010392	neuregulin 1 Source RGD Symbol Acc 621341
E09	UPFR1025300	ENSRNOT000000080465.1	Nrp1	ENSRNOG00000010744	neuropilin 1 Source RGD Symbol Acc 621588
E10	UPFR1067456	ENSRNOT00000042562.3	Nrp2	ENSRNOG00000031232	neuropilin 2 Source RGD Symbol Acc 621442
E11	UPFR1101598	ENSRNOT000000087115.1	Ntr3	ENSRNOG00000019716	neurotrophin 3 Source RGD Symbol Acc 619728
E12	UPFR1052995	ENSRNOT00000005255.3	Ntn1	ENSRNOG0000003947	netrin 1 Source RGD Symbol Acc 619809
F01	UPFR1046068	ENSRNOT00000000325.6	Olig2	ENSRNOG00000028658	oligodendrocyte transcription factor 2 Source RGD Symbol Acc 1307098
F02	UPFR1031630	ENSRNOT000000092712.1	Pafah1b1	ENSRNOG0000002755	platelet-activating factor acetylhydrolase 1b, regulatory subunit 1 Source RGD Symbol Acc 620331
F03	UPFR1016407	ENSRNOT00000042623.4	Pard3	ENSRNOG00000032437	par-3 family cell polarity regulator Source RGD Symbol Acc 620374
F04	UPFR1105012	ENSRNOT000000050076.4	Pax2	ENSRNOG00000014253	paired box 2 Source RGD Symbol Acc 1305568
F05	UPFR1040215	ENSRNOT00000018652.5	Pax3	ENSRNOG00000013670	paired box 3 Source RGD Symbol Acc 620431
F06	UPFR1019289	ENSRNOT000000089525.1	Pax6	ENSRNOG00000004410	paired box 6 Source RGD Symbol Acc 3258
F07	UPFR1084721	ENSRNOT000000077111.1	Pou3f3	ENSRNOG00000038909	POU class 3 homeobox 3 Source RGD Symbol Acc 619768
F08	UPFR1061978	ENSRNOT000000092174.1	Pou4f1	ENSRNOG00000060662	POU class 4 homeobox 1 Source RGD Symbol Acc 620074
F09	UPFR1108673	ENSRNOT000000016088.6	Ptn	ENSRNOG00000011946	pleiotrophin Source RGD Symbol Acc 3444
F10	UPFR1019271	ENSRNOT00000001417.5	Rac1	ENSRNOG0000001068	Rac family small GTPase 1 Source RGD Symbol Acc 619755

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1060273	ENSRNOT00000042384.5	Robo1	ENSRNOG0000029614	roundabout guidance receptor 1 Source RGD Symbol Acc 61941
F12	UPFR1058760	ENSRNOT00000006443.7	Rtn4	ENSRNOG0000004621	reticulon 4 Source RGD Symbol Acc 620989
G01	UPFR1056437	ENSRNOT00000015612.5	S100a6	ENSRNOG0000011647	S100 calcium binding protein A6 Source RGD Symbol Acc 620264
G02	UPFR1048763	ENSRNOT00000001743.2	S100b	ENSRNOG0000001295	S100 calcium binding protein B Source RGD Symbol Acc 3615
G03	UPFR1066763	ENSRNOT00000008497.2	Shh	ENSRNOG0000006120	sonic hedgehog signaling molecule Source RGD Symbol Acc 3673
G04	UPFR1102774	ENSRNOT00000005477.7	Slit2	ENSRNOG0000003840	slit guidance ligand 2 Source RGD Symbol Acc 69310
G05	UPFR1062096	ENSRNOT00000002885.6	Sod1	ENSRNOG0000002115	superoxide dismutase 1 Source RGD Symbol Acc 3731
G06	UPFR1042145	ENSRNOT00000016236.3	Sox2	ENSRNOG0000012199	SRY box 2 Source RGD Symbol Acc 1565646
G07	UPFR1077656	ENSRNOT00000025494.4	Sox8	ENSRNOG0000018841	SRY box 8 Source RGD Symbol Acc 1309072
G08	UPFR1040072	ENSRNOT00000026760.4	Stat3	ENSRNOG0000019742	signal transducer and activator of transcription 3 Source RGD Symbol Acc 3772
G09	UPFR1103881	ENSRNOT00000028051.4	Tgfb1	ENSRNOG0000020652	transforming growth factor, beta 1 Source RGD Symbol Acc 69051
G10	UPFR1024503	ENSRNOT00000027682.5	Th	ENSRNOG0000020410	tyrosine hydroxylase Source RGD Symbol Acc 3853
G11	UPFR1120056	ENSRNOT00000080254.1	Tnr	ENSRNOG0000002468	tenascin R Source RGD Symbol Acc 3886
G12	UPFR1117908	ENSRNOT00000026559.5	Vegfa	ENSRNOG0000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
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.

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.