

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

## Rat Neurotransmitter Receptors

Cat. no. 249955 UPRN-060ZR

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	Adra1a	Adra1d	Adra2a	Adrb2	Adrb3	Avpr1a	LOC100909648	Brs3	Cckbr	Chrm1	Chrm4	Chrm5
B	Chrna3	Chrna4	Chrna5	Chrna6	Chrna7	Chrne	Cnr1	Drd1	Drd2	Drd5	Gabbr1	Gabbr2
C	Gabra1	Gabra2	Gabra4	Gabra5	Gabra6	Gabrb1	Gabrb3	Gabrd	Gabre	Gabrg1	Gabrg2	Gabrg3
D	Gabrq	Gabbr1	Gabbr2	Gcgr	Gria1	Gria2	Gria3	Grik1	Grik2	Grik4	Grik5	Grin1
E	Grin2a	Grin2b	Grin2c	Grm1	Grm3	Grm4	Grm5	Grm6	Grm7	Grm8	Grpr	Hcrtr2
F	Hrh1	Hrh4	Htr1a	Htr1b	Htr1d	Htr1f	Htr2a	Htr2c	Htr3a	Htr4	Htr7	Npy2r
G	Npy5r	Ntsr2	Oxtr	Prokr2	Sctr	Sstr1	Sstr2	Sstr4	Tacr1	Tacr2	Tacr3	Tspo
H	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	UPFR1015154	ENSRNOT00000012736.3	Adra1a	ENSRNOG0000009522	adrenoceptor alpha 1A Source RGD Symbol Acc 2055
A02	UPFR1071837	ENSRNOT00000028877.2	Adra1d	ENSRNOG00000021256	adrenoceptor alpha 1D Source RGD Symbol Acc 62064
A03	UPFR1111906	ENSRNOT00000071541.1	Adra2a	ENSRNOG0000047545	adrenoceptor alpha 2A Source RGD Symbol Acc 2056
A04	UPFR1035973	ENSRNOT00000026098.3	Adrb2	ENSRNOG0000019217	adrenoceptor beta 2 Source RGD Symbol Acc 2060
A05	UPFR1067180	ENSRNOT00000016907.2	Adrb3	ENSRNOG0000012674	adrenoceptor beta 3 Source RGD Symbol Acc 2061
A06	UPFR1112531	ENSRNOT00000005829.5	Avpr1a	ENSRNOG0000004400	arginine vasopressin receptor 1A Source RGD Symbol Acc 2185
A07	UPFR1032011	ENSRNOT00000074512.2	LOC100909648	ENSRNOG0000048522	arginine vasopressin receptor 1B Source RGD Symbol Acc 61886
A08	UPFR1035547	ENSRNOT00000001164.5	Brs3	ENSRNOG0000000873	bombesin receptor subtype 3 Source RGD Symbol Acc 628645
A09	UPFR1062077	ENSRNOT00000024077.3	Cckbr	ENSRNOG0000017679	cholecystokinin B receptor Source RGD Symbol Acc 2290
A10	UPFR1090975	ENSRNOT00000024785.4	Chrm1	ENSRNOG0000018385	cholinergic receptor, muscarinic 1 Source RGD Symbol Acc 2342
A11	UPFR1038769	ENSRNOT00000023583.5	Chrm4	ENSRNOG0000017556	cholinergic receptor, muscarinic 4 Source RGD Symbol Acc 2344
A12	UPFR1042397	ENSRNOT00000008387.6	Chrm5	ENSRNOG0000006397	cholinergic receptor, muscarinic 5 Source RGD Symbol Acc 620027
B01	UPFR1018284	ENSRNOT00000019307.4	Chrna3	ENSRNOG0000013829	cholinergic receptor nicotinic alpha 3 subunit Source RGD Symbol Acc 2345
B02	UPFR1104964	ENSRNOT00000009041.7	Chrna4	ENSRNOG0000011202	cholinergic receptor nicotinic alpha 4 subunit Source RGD Symbol Acc 2346
B03	UPFR1108676	ENSRNOT000000065771.3	Chrna5	ENSRNOG0000013610	cholinergic receptor nicotinic alpha 5 subunit Source RGD Symbol Acc 2347
B04	UPFR1058046	ENSRNOT00000016452.4	Chrna6	ENSRNOG0000012283	cholinergic receptor nicotinic alpha 6 subunit Source RGD Symbol Acc 69281
B05	UPFR1095157	ENSRNOT00000082487.1	Chrna7	ENSRNOG0000010853	cholinergic receptor nicotinic alpha 7 subunit Source RGD Symbol Acc 2348
B06	UPFR1052965	ENSRNOT00000005050.4	Chrne	ENSRNOG0000003777	cholinergic receptor nicotinic epsilon subunit Source RGD Symbol Acc 2353
B07	UPFR1028958	ENSRNOT00000010850.2	Cnr1	ENSRNOG0000008223	cannabinoid receptor 1 Source RGD Symbol Acc 2369
B08	UPFR1098242	ENSRNOT00000030893.3	Drd1	ENSRNOG0000023688	dopamine receptor D1 Source RGD Symbol Acc 2518
B09	UPFR1040837	ENSRNOT00000045944.5	Drd2	ENSRNOG0000008428	dopamine receptor D2 Source RGD Symbol Acc 2520
B10	UPFR1113428	ENSRNOT00000007074.2	Drd5	ENSRNOG0000005338	dopamine receptor D5 Source RGD Symbol Acc 2523
B11	UPFR1089695	ENSRNOT00000040232.6	Gabbr1	ENSRNOG0000000774	gamma-aminobutyric acid type B receptor subunit 1 Source RGD Symbol Acc 621537
B12	UPFR1038575	ENSRNOT00000011573.4	Gabbr2	ENSRNOG0000008431	gamma-aminobutyric acid type B receptor subunit 2 Source RGD Symbol Acc 619864
C01	UPFR1025377	ENSRNOT00000004725.7	Gabra1	ENSRNOG0000003512	gamma-aminobutyric acid type A receptor alpha1 subunit Source RGD Symbol Acc 61855
C02	UPFR1026213	ENSRNOT00000003197.7	Gabra2	ENSRNOG0000002349	gamma-aminobutyric acid type A receptor alpha2 subunit Source RGD Symbol Acc 61856
C03	UPFR1064826	ENSRNOT00000003191.6	Gabra4	ENSRNOG0000002336	gamma-aminobutyric acid type A receptor alpha4 subunit Source RGD Symbol Acc 621670
C04	UPFR1114425	ENSRNOT00000083894.1	Gabra5	ENSRNOG0000010803	gamma-aminobutyric acid type A receptor alpha 5 subunit Source RGD Symbol Acc 61859
C05	UPFR1043178	ENSRNOT00000004877.4	Gabra6	ENSRNOG0000003569	gamma-aminobutyric acid type A receptor alpha 6 subunit Source RGD Symbol Acc 61861
C06	UPFR1111806	ENSRNOT00000003170.3	Gabbr1	ENSRNOG0000002327	gamma-aminobutyric acid type A receptor beta 1 subunit Source RGD Symbol Acc 2649
C07	UPFR1091696	ENSRNOT00000077594.1	Gabbr3	ENSRNOG0000060599	gamma-aminobutyric acid type A receptor beta 3 subunit Source RGD Symbol Acc 2651
C08	UPFR1095139	ENSRNOT00000022246.4	Gabrd	ENSRNOG0000016385	gamma-aminobutyric acid type A receptor delta subunit Source RGD Symbol Acc 61901
C09	UPFR1051909	ENSRNOT00000087138.1	Gabre	ENSRNOG0000061182	gamma-aminobutyric acid type A receptor epsilon subunit Source RGD Symbol Acc 68320
C10	UPFR1088113	ENSRNOT00000003240.6	Gabrg1	ENSRNOG0000002360	gamma-aminobutyric acid type A receptor gamma 1 subunit Source RGD Symbol Acc 621732
		ENSRNOT000000		ENSRNOG00	gamma-aminobutyric acid type A receptor gamma 2 subunit Source RGD

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1104925	082445.1	Gabrg2	000003241	Symbol Acc 61966
C12	UPFR1031764	ENSRNOT00000 093339.1	Gabrg3	ENSRNOG00 000014862	gamma-aminobutyric acid type A receptor gamma 3 subunit Source RGD Symbol Acc 621735
D01	UPFR1026776	ENSRNOT00000 078419.1	Gabrq	ENSRNOG00 000053402	gamma-aminobutyric acid type A receptor theta subunit Source RGD Symbol Acc 68331
D02	UPFR1114910	ENSRNOT00000 010172.6	Gabbr1	ENSRNOG00 000007603	gamma-aminobutyric acid type A receptor rho 1 subunit Source RGD Symbol Acc 61900
D03	UPFR1019350	ENSRNOT00000 009973.3	Gabbr2	ENSRNOG00 000007490	gamma-aminobutyric acid type A receptor rho 2 subunit Source RGD Symbol Acc 61902
D04	UPFR1083301	ENSRNOT00000 083601.1	Gcgr	ENSRNOG00 000036692	glucagon receptor Source RGD Symbol Acc 2669
D05	UPFR1117301	ENSRNOT00000 081136.1	Gria1	ENSRNOG00 000045816	glutamate ionotropic receptor AMPA type subunit 1 Source RGD Symbol Acc 621531
D06	UPFR1039996	ENSRNOT00000 083361.1	Gria2	ENSRNOG00 000054204	glutamate ionotropic receptor AMPA type subunit 2 Source RGD Symbol Acc 61862
D07	UPFR1047643	ENSRNOT00000 010367.6	Gria3	ENSRNOG00 000007682	glutamate ionotropic receptor AMPA type subunit 3 Source RGD Symbol Acc 70958
D08	UPFR1047754	ENSRNOT00000 085629.1	Grik1	ENSRNOG00 000001575	glutamate ionotropic receptor kainate type subunit 1 Source RGD Symbol Acc 2732
D09	UPFR1048801	ENSRNOT00000 037559.5	Grik2	ENSRNOG00 000000368	glutamate ionotropic receptor kainate type subunit 2 Source RGD Symbol Acc 2733
D10	UPFR1017685	ENSRNOT00000 048347.3	Grik4	ENSRNOG00 000030910	glutamate ionotropic receptor kainate type subunit 4 Source RGD Symbol Acc 2734
D11	UPFR1016716	ENSRNOT00000 027578.6	Grik5	ENSRNOG00 000020310	glutamate ionotropic receptor kainate type subunit 5 Source RGD Symbol Acc 2735
D12	UPFR1041053	ENSRNOT00000 049297.3	Grin1	ENSRNOG00 000011726	glutamate ionotropic receptor NMDA type subunit 1 Source RGD Symbol Acc 2736
E01	UPFR1093256	ENSRNOT00000 044626.3	Grin2a	ENSRNOG00 000033942	glutamate ionotropic receptor NMDA type subunit 2A Source RGD Symbol Acc 2737
E02	UPFR1071315	ENSRNOT00000 011697.4	Grin2b	ENSRNOG00 000008766	glutamate ionotropic receptor NMDA type subunit 2B Source RGD Symbol Acc 2738
E03	UPFR1078301	ENSRNOT00000 004477.5	Grin2c	ENSRNOG00 000003280	glutamate ionotropic receptor NMDA type subunit 2C Source RGD Symbol Acc 2739
E04	UPFR1030956	ENSRNOT00000 044325.3	Grm1	ENSRNOG00 000014290	glutamate metabotropic receptor 1 Source RGD Symbol Acc 2742
E05	UPFR1061070	ENSRNOT00000 007572.7	Grm3	ENSRNOG00 000005519	glutamate metabotropic receptor 3 Source RGD Symbol Acc 2744
E06	UPFR1013959	ENSRNOT00000 093633.1	Grm4	ENSRNOG00 000000487	glutamate metabotropic receptor 4 Source RGD Symbol Acc 2745
E07	UPFR1073288	ENSRNOT00000 050639.2	Grm5	ENSRNOG00 000016429	glutamate metabotropic receptor 5 Source RGD Symbol Acc 2746
E08	UPFR1019110	ENSRNOT00000 000249.6	Grm6	ENSRNOG00 000000233	glutamate metabotropic receptor 6 Source RGD Symbol Acc 2747
E09	UPFR1112528	ENSRNOT00000 056570.3	Grm7	ENSRNOG00 000005662	glutamate metabotropic receptor 7 Source RGD Symbol Acc 619857
E10	UPFR1086185	ENSRNOT00000 031714.4	Grm8	ENSRNOG00 000021468	glutamate metabotropic receptor 8 Source RGD Symbol Acc 619858
E11	UPFR1103979	ENSRNOT00000 005559.6	Grpr	ENSRNOG00 000004124	gastrin releasing peptide receptor Source RGD Symbol Acc 2750
E12	UPFR1024751	ENSRNOT00000 015824.4	Hctr2	ENSRNOG00 000011251	hypocretin receptor 2 Source RGD Symbol Acc 2788
F01	UPFR1069507	ENSRNOT00000 009775.4	Hrh1	ENSRNOG00 000007420	histamine receptor H 1 Source RGD Symbol Acc 2830
F02	UPFR1066640	ENSRNOT00000 022744.4	Hrh4	ENSRNOG00 000016887	histamine receptor H4 Source RGD Symbol Acc 620631
F03	UPFR1088882	ENSRNOT00000 013618.2	Htr1a	ENSRNOG00 000010254	5-hydroxytryptamine receptor 1A Source RGD Symbol Acc 2845
F04	UPFR1111387	ENSRNOT00000 017411.3	Htr1b	ENSRNOG00 000013042	5-hydroxytryptamine receptor 1B Source RGD Symbol Acc 2846
F05	UPFR1072282	ENSRNOT00000 016046.2	Htr1d	ENSRNOG00 000012038	5-hydroxytryptamine receptor 1D Source RGD Symbol Acc 2847
F06	UPFR1057352	ENSRNOT00000 000907.5	Htr1f	ENSRNOG00 000000716	5-hydroxytryptamine receptor 1F Source RGD Symbol Acc 71083
F07	UPFR1042475	ENSRNOT00000 013408.6	Htr2a	ENSRNOG00 000010063	5-hydroxytryptamine receptor 2A Source RGD Symbol Acc 61800
F08	UPFR1051208	ENSRNOT00000 090922.1	Htr2c	ENSRNOG00 000030877	5-hydroxytryptamine receptor 2C Source RGD Symbol Acc 2848
F09	UPFR1055375	ENSRNOT00000 008965.4	Htr3a	ENSRNOG00 000006595	5-hydroxytryptamine receptor 3A Source RGD Symbol Acc 61818
F10	UPFR1102556	ENSRNOT00000 025892.5	Htr4	ENSRNOG00 000019134	5-hydroxytryptamine receptor 4 Source RGD Symbol Acc 2850

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1107332	ENSRNOT00000025450.7	Htr7	ENSRNOG0000018827	5-hydroxytryptamine receptor 7 Source RGD Symbol Acc 71034
F12	UPFR1061151	ENSRNOT00000072029.2	Npy2r	ENSRNOG0000049213	neuropeptide Y receptor Y2 Source RGD Symbol Acc 620475
G01	UPFR1091611	ENSRNOT00000018976.3	Npy5r	ENSRNOG0000014172	neuropeptide Y receptor Y5 Source RGD Symbol Acc 3199
G02	UPFR1074037	ENSRNOT00000071387.2	Ntsr2	ENSRNOG0000049054	neurotensin receptor 2 Source RGD Symbol Acc 70962
G03	UPFR1029559	ENSRNOT00000007724.2	Oxtr	ENSRNOG000005806	oxytocin receptor Source RGD Symbol Acc 3239
G04	UPFR1040433	ENSRNOT00000028889.2	Prokr2	ENSRNOG0000021266	prokineticin receptor 2 Source RGD Symbol Acc 708445
G05	UPFR1069326	ENSRNOT00000072088.2	Sctr	ENSRNOG0000049766	secretin receptor Source RGD Symbol Acc 621342
G06	UPFR1033849	ENSRNOT00000073970.2	Sstr1	ENSRNOG0000048145	somatostatin receptor 1 Source RGD Symbol Acc 3762
G07	UPFR1082480	ENSRNOT00000003735.3	Sstr2	ENSRNOG0000002793	somatostatin receptor 2 Source RGD Symbol Acc 3763
G08	UPFR1102276	ENSRNOT00000006181.6	Sstr4	ENSRNOG000004641	somatostatin receptor 4 Source RGD Symbol Acc 3764
G09	UPFR1122055	ENSRNOT00000007984.5	Tacr1	ENSRNOG000005853	tachykinin receptor 1 Source RGD Symbol Acc 3811
G10	UPFR1038901	ENSRNOT00000071394.1	Tacr2	ENSRNOG0000050658	tachykinin receptor 2 Source RGD Symbol Acc 3812
G11	UPFR1079295	ENSRNOT00000012473.2	Tacr3	ENSRNOG0000009372	tachykinin receptor 3 Source RGD Symbol Acc 3810
G12	UPFR1024850	ENSRNOT00000014089.4	Tspo	ENSRNOG0000010549	translocator protein Source RGD Symbol Acc 2228
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 QuantiTova LNA Probe PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249945
QuantiTova 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
QuantiTova Probe RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiTova Probe RT-PCR Master Mix, 20 $\mu$ l QuantiTova 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
QuantiTova Probe PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiTova Probe PCR Master Mix, 500 $\mu$ l QuantiTova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water	208252

\*Larger kit sizes available.

The QuantiTova 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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