

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

## Mouse Parkinson's Disease

Cat. no. 249955 UPMM-124ZR

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	Aldh1a1	Apc	App	Alp2b2	Atxn2	Atxn3	Basp1	Bdnf	Cadps	Casp1	Casp3	Casp7
B	Casp8	Casp9	Cdc27	Cdc42	Cdh8	Chgb	Cul2	Cxcl1	Ddc	Dlk1	Drd2	Egln1
C	Fbxo9	Fgf13	Fn1	Gabbr2	Gbe1	Gpr37	Gria3	Hspa4	Htr2a	Kcnj6	Lrrk2	Mapk9
D	Mapt	Ncoa1	Nefl	Nfasc	Nr4a2	Nrxn3	Nsf	Nsg1	Ntrk2	Opa1	Pan2	Prkn
E	Park7	Pink1	Ppid	Prdx2	Psen2	Pten	Rgs4	Rtn1	S100b	Sept5	Skp1a	Slc18a2
F	Slc25a4	Slc6a3	Slit1	Snca	Spen	Srsf7	Stub1	Sv2b	Syng3	Syt1	Syt11	Tcf7l2
G	Th	Tpbp	Uba1	Ubc	Ube2i	Ube2k	Ube2l3	Uchl1	Usp34	Vamp1	Vdac3	Ywhaz
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	QIC	QIC	QIC	QIC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFM077566 5	ENSMUST00000 225337.2	Aldh1a1	ENSMUSG00 000053279	aldehyde dehydrogenase family 1, subfamily A1 Source MGI Symbol Acc MGI 1353450
A02	UPFM082281 4	ENSMUST00000 163295.1	Apc	ENSMUSG00 000005871	APC, WNT signaling pathway regulator Source MGI Symbol Acc MGI 88039
A03	UPFM081516 9	ENSMUST00000 227723.1	App	ENSMUSG00 000022892	amyloid beta (A4) precursor protein Source MGI Symbol Acc MGI 88059
A04	UPFM073607 5	ENSMUST00000 101044.8	Atp2b2	ENSMUSG00 000030302	ATPase, Ca++ transporting, plasma membrane 2 Source MGI Symbol Acc MGI 105368
A05	UPFM071368 6	ENSMUST00000 199864.1	Atn2	ENSMUSG00 000042605	ataxin 2 Source MGI Symbol Acc MGI 1277223
A06	UPFM067972 7	ENSMUST00000 160251.7	Atn3	ENSMUSG00 000021189	ataxin 3 Source MGI Symbol Acc MGI 1099442
A07	UPFM091155 4	ENSMUST00000 058845.8	Basp1	ENSMUSG00 000045763	brain abundant, membrane attached signal protein 1 Source MGI Symbol Acc MGI 1917600
A08	UPFM085815 5	ENSMUST00000 111049.8	Bdnf	ENSMUSG00 000048482	brain derived neurotrophic factor Source MGI Symbol Acc MGI 88145
A09	UPFM067838 9	ENSMUST00000 177814.1	Cadps	ENSMUSG00 000054423	Ca2+-dependent secretion activator Source MGI Symbol Acc MGI 1350922
A10	UPFM095374 8	ENSMUST00000 027015.5	Casp1	ENSMUSG00 000025888	caspase 1 Source MGI Symbol Acc MGI 96544
A11	UPFM072895 1	ENSMUST00000 210534.1	Casp3	ENSMUSG00 000031628	caspase 3 Source MGI Symbol Acc MGI 107739
A12	UPFM063048 8	ENSMUST00000 237055.1	Casp7	ENSMUSG00 000025076	caspase 7 Source MGI Symbol Acc MGI 109383
B01	UPFM067082 6	ENSMUST00000 191201.6	Casp8	ENSMUSG00 000026029	caspase 8 Source MGI Symbol Acc MGI 1261423
B02	UPFM069330 9	ENSMUST00000 097805.10	Casp9	ENSMUSG00 000028914	caspase 9 Source MGI Symbol Acc MGI 1277950
B03	UPFM074187 0	ENSMUST00000 106962.8	Cdc27	ENSMUSG00 000020687	cell division cycle 27 Source MGI Symbol Acc MGI 102685
B04	UPFM073725 4	ENSMUST00000 030417.9	Cdc42	ENSMUSG00 000006699	cell division cycle 42 Source MGI Symbol Acc MGI 106211
B05	UPFM063576 0	ENSMUST00000 145601.7	Cdh8	ENSMUSG00 000036510	cadherin 8 Source MGI Symbol Acc MGI 107434
B06	UPFM088694 2	ENSMUST00000 028826.3	Chgb	ENSMUSG00 000027350	chromogranin B Source MGI Symbol Acc MGI 88395
B07	UPFM076032 6	ENSMUST00000 161317.1	Cul2	ENSMUSG00 000024231	cullin 2 Source MGI Symbol Acc MGI 1918995
B08	UPFM089462 9	ENSMUST00000 025444.7	Cxxc1	ENSMUSG00 000024560	CXXC finger 1 (PHD domain) Source MGI Symbol Acc MGI 1921572
B09	UPFM094551 8	ENSMUST00000 136810.7	Ddc	ENSMUSG00 000020182	dopa decarboxylase Source MGI Symbol Acc MGI 94876
B10	UPFM093509 3	ENSMUST00000 109846.10	Dlk1	ENSMUSG00 000040856	delta like non-canonical Notch ligand 1 Source MGI Symbol Acc MGI 94900
B11	UPFM085072 5	ENSMUST00000 075764.7	Drd2	ENSMUSG00 000032259	dopamine receptor D2 Source MGI Symbol Acc MGI 94924
B12	UPFM069998 0	ENSMUST00000 034469.6	Egl1	ENSMUSG00 000031987	egl-9 family hypoxia-inducible factor 1 Source MGI Symbol Acc MGI 1932286
C01	UPFM090584 6	ENSMUST00000 085311.12	Fbxo9	ENSMUSG00 000001366	f-box protein 9 Source MGI Symbol Acc MGI 1918788
C02	UPFM094684 9	ENSMUST00000 033473.11	Fgf13	ENSMUSG00 000031137	fibroblast growth factor 13 Source MGI Symbol Acc MGI 109178
C03	UPFM086511 0	ENSMUST00000 188894.6	Fn1	ENSMUSG00 000026193	fibronectin 1 Source MGI Symbol Acc MGI 95566
C04	UPFM062782 5	ENSMUST00000 205643.1	Gabbr2	ENSMUSG00 000039809	gamma-aminobutyric acid (GABA) B receptor, 2 Source MGI Symbol Acc MGI 2386030
C05	UPFM076976 3	ENSMUST00000 163832.7	Gbe1	ENSMUSG00 000022707	glucan (1,4-alpha-), branching enzyme 1 Source MGI Symbol Acc MGI 1921435
C06	UPFM070038 8	ENSMUST00000 200812.1	Gpr37	ENSMUSG00 000039904	G protein-coupled receptor 37 Source MGI Symbol Acc MGI 1313297
C07	UPFM076116 0	ENSMUST00000 148212.1	Gria3	ENSMUSG00 000001986	glutamate receptor, ionotropic, AMPA3 (alpha 3) Source MGI Symbol Acc MGI 95810
C08	UPFM062819 4	ENSMUST00000 020630.7	Hspa4	ENSMUSG00 000020361	heat shock protein 4 Source MGI Symbol Acc MGI 1342292
C09	UPFM097357 9	ENSMUST00000 036653.4	Htr2a	ENSMUSG00 000034997	5-hydroxytryptamine (serotonin) receptor 2A Source MGI Symbol Acc MGI 109521
C10	UPFM077247 9	ENSMUST00000 232128.1	Kcnj6	ENSMUSG00 000043301	potassium inwardly-rectifying channel, subfamily J, member 6 Source MGI Symbol Acc MGI 104781
	UPFM100052	ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	8	140734.7	Lrrk2	000036273	leucine-rich repeat kinase 2 Source MGI Symbol Acc MGI 1913975
C12	UPFM094782 8	ENSMUST00000 144857.7	Mapk9	ENSMUSG00 000020366	mitogen-activated protein kinase 9 Source MGI Symbol Acc MGI 1346862
D01	UPFM065360 3	ENSMUST00000 106988.7	Mapt	ENSMUSG00 000018411	microtubule-associated protein tau Source MGI Symbol Acc MGI 97180
D02	UPFM088014 6	ENSMUST00000 217794.1	Ncoa1	ENSMUSG00 000020647	nuclear receptor coactivator 1 Source MGI Symbol Acc MGI 1276523
D03	UPFM076212 1	ENSMUST00000 022639.7	Nefl	ENSMUSG00 000022055	neurofilament, light polypeptide Source MGI Symbol Acc MGI 97313
D04	UPFM095439 3	ENSMUST00000 188307.1	Nfasc	ENSMUSG00 000026442	neurofascin Source MGI Symbol Acc MGI 104753
D05	UPFM090371 7	ENSMUST00000 112627.1	Nr4a2	ENSMUSG00 000026826	nuclear receptor subfamily 4, group A, member 2 Source MGI Symbol Acc MGI 1352456
D06	UPFM096435 7	ENSMUST00000 190626.6	Nrxn3	ENSMUSG00 000066392	neurexin III Source MGI Symbol Acc MGI 1096389
D07	UPFM097647 5	ENSMUST00000 133774.3	Nsf	ENSMUSG00 000034187	N-ethylmaleimide sensitive fusion protein Source MGI Symbol Acc MGI 104560
D08	UPFM083394 8	ENSMUST00000 201341.1	Nsg1	ENSMUSG00 000029126	neuron specific gene family member 1 Source MGI Symbol Acc MGI 109149
D09	UPFM086215 7	ENSMUST00000 225583.1	Ntrk2	ENSMUSG00 000055254	neurotrophic tyrosine kinase, receptor, type 2 Source MGI Symbol Acc MGI 97384
D10	UPFM072888 5	ENSMUST00000 160153.1	Opa1	ENSMUSG00 000038084	OPA1, mitochondrial dynamin like GTPase Source MGI Symbol Acc MGI 1921393
D11	UPFM095184 2	ENSMUST00000 218496.1	Pan2	ENSMUSG00 000005682	PAN2 poly(A) specific ribonuclease subunit Source MGI Symbol Acc MGI 1918984
D12	UPFM062635 8	ENSMUST00000 186167.1	Prkn	ENSMUSG00 000023826	parkin RBR E3 ubiquitin protein ligase Source MGI Symbol Acc MGI 1355296
E01	UPFM067600 6	ENSMUST00000 146184.2	Park7	ENSMUSG00 000028964	Parkinson disease (autosomal recessive, early onset) 7 Source MGI Symbol Acc MGI 2135637
E02	UPFM063908 9	ENSMUST00000 105817.3	Pink1	ENSMUSG00 000028756	PTEN induced putative kinase 1 Source MGI Symbol Acc MGI 1916193
E03	UPFM072560 3	ENSMUST00000 159505.2	Ppid	ENSMUSG00 000027804	peptidylprolyl isomerase D (cyclophilin D) Source MGI Symbol Acc MGI 1914988
E04	UPFM095945 4	ENSMUST00000 127215.1	Prdx2	ENSMUSG00 000005161	peroxiredoxin 2 Source MGI Symbol Acc MGI 109486
E05	UPFM063812 7	ENSMUST00000 111106.7	Psen2	ENSMUSG00 000010609	presenilin 2 Source MGI Symbol Acc MGI 109284
E06	UPFM089742 6	ENSMUST00000 013807.7	Pten	ENSMUSG00 000013663	phosphatase and tensin homolog Source MGI Symbol Acc MGI 109583
E07	UPFM075693 5	ENSMUST00000 027991.11	Rgs4	ENSMUSG00 000038530	regulator of G-protein signaling 4 Source MGI Symbol Acc MGI 108409
E08	UPFM093664 9	ENSMUST00000 078505.13	Rtn1	ENSMUSG00 000021087	reticulon 1 Source MGI Symbol Acc MGI 1933947
E09	UPFM065473 2	ENSMUST00000 036387.7	S100b	ENSMUSG00 000033208	S100 protein, beta polypeptide, neural Source MGI Symbol Acc MGI 98217
E10	UPFM071595 4	ENSMUST00000 231244.1	Sept5	ENSMUSG00 000072214	septin 5 Source MGI Symbol Acc MGI 1195461
E11	UPFM069420 1	ENSMUST00000 037324.11	Skp1a	ENSMUSG00 000036309	S-phase kinase-associated protein 1A Source MGI Symbol Acc MGI 103575
E12	UPFM078623 2	ENSMUST00000 026084.4	Slc18a2	ENSMUSG00 000025094	solute carrier family 18 (vesicular monoamine), member 2 Source MGI Symbol Acc MGI 106677
F01	UPFM081497 7	ENSMUST00000 034049.4	Slc25a4	ENSMUSG00 000031633	solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 4 Source MGI Symbol Acc MGI 1353495
F02	UPFM070741 7	ENSMUST00000 022100.6	Slc6a3	ENSMUSG00 000021609	solute carrier family 6 (neurotransmitter transporter, dopamine), member 3 Source MGI Symbol Acc MGI 94862
F03	UPFM089794 7	ENSMUST00000 169141.7	Slit1	ENSMUSG00 000025020	slit guidance ligand 1 Source MGI Symbol Acc MGI 1315203
F04	UPFM064366 2	ENSMUST00000 163779.7	Snca	ENSMUSG00 000025889	synuclein, alpha Source MGI Symbol Acc MGI 1277151
F05	UPFM081646 4	ENSMUST00000 078886.9	Spen	ENSMUSG00 000040761	spen family transcription repressor Source MGI Symbol Acc MGI 1891706
F06	UPFM072141 2	ENSMUST00000 235036.1	Srsf7	ENSMUSG00 000024097	serine/arginine-rich splicing factor 7 Source MGI Symbol Acc MGI 1926232
F07	UPFM098660 0	ENSMUST00000 236361.1	Stub1	ENSMUSG00 000039615	STIP1 homology and U-Box containing protein 1 Source MGI Symbol Acc MGI 1891731
F08	UPFM078043 0	ENSMUST00000 085164.6	Sv2b	ENSMUSG00 000053025	synaptic vesicle glycoprotein 2 b Source MGI Symbol Acc MGI 1927338
F09	UPFM087178 8	ENSMUST00000 130936.2	Syngn3	ENSMUSG00 000007021	synaptogyrin 3 Source MGI Symbol Acc MGI 1341881
F10	UPFM068100 7	ENSMUST00000 147593.1	Syt1	ENSMUSG00 000035864	synaptotagmin I Source MGI Symbol Acc MGI 99667

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFM095718 8	ENSMUST00000 090945.4	Syt11	ENSMUSG00 000068923	synaptotagmin XI Source MGI Symbol Acc MGI 1859547
F12	UPFM098825 9	ENSMUST00000 142291.7	Tcf7l2	ENSMUSG00 000024985	transcription factor 7 like 2, T cell specific, HMG box Source MGI Symbol Acc MGI 1202879
G01	UPFM076005 4	ENSMUST00000 000219.9	Th	ENSMUSG00 000000214	tyrosine hydroxylase Source MGI Symbol Acc MGI 98735
G02	UPFM085286 0	ENSMUST00000 098500.4	Tpbp	ENSMUSG00 000035274	trophoblast glycoprotein Source MGI Symbol Acc MGI 1341264
G03	UPFM062054 8	ENSMUST00000 137892.7	Uba1	ENSMUSG00 000001924	ubiquitin-like modifier activating enzyme 1 Source MGI Symbol Acc MGI 98890
G04	UPFM085440 8	ENSMUST00000 156249.1	Ubc	ENSMUSG00 000008348	ubiquitin C Source MGI Symbol Acc MGI 98889
G05	UPFM077054 8	ENSMUST00000 173084.7	Ube2i	ENSMUSG00 000015120	ubiquitin-conjugating enzyme E2I Source MGI Symbol Acc MGI 107365
G06	UPFM081687 7	ENSMUST00000 202679.3	Ube2k	ENSMUSG00 000029203	ubiquitin-conjugating enzyme E2K Source MGI Symbol Acc MGI 1858216
G07	UPFM070062 4	ENSMUST00000 231643.1	Ube2l3	ENSMUSG00 000038965	ubiquitin-conjugating enzyme E2L 3 Source MGI Symbol Acc MGI 109240
G08	UPFM080966 9	ENSMUST00000 031131.10	Uchl1	ENSMUSG00 000029223	ubiquitin carboxy-terminal hydrolase L1 Source MGI Symbol Acc MGI 103149
G09	UPFM093893 7	ENSMUST00000 129521.7	Usp34	ENSMUSG00 000056342	ubiquitin specific peptidase 34 Source MGI Symbol Acc MGI 109473
G10	UPFM095411 4	ENSMUST00000 032487.13	Vamp1	ENSMUSG00 000030337	vesicle-associated membrane protein 1 Source MGI Symbol Acc MGI 1313276
G11	UPFM094243 5	ENSMUST00000 009036.10	Vdac3	ENSMUSG00 000008892	voltage-dependent anion channel 3 Source MGI Symbol Acc MGI 106922
G12	UPFM064828 0	ENSMUST00000 110361.7	Ywhaz	ENSMUSG00 000022285	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide Source MGI Symbol Acc MGI 109484
H01	UPFM113294 6	ENSMUST00000 163829.1	Actb	ENSMUSG00 000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	UPFM113294 7	ENSMUST00000 102476.4	B2m	ENSMUSG00 000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	UPFM113294 8	ENSMUST00000 117757.8	Gapdh	ENSMUSG00 000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	UPFM113294 9	ENSMUST00000 026613.13	Gusb	ENSMUSG00 000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	UPFM113295 0	ENSMUST00000 166469.7	Hsp90ab1	ENSMUSG00 000023944	heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247
H06	UPFM112660 9	UPL_MGDC	MGDC	UPL_MGDC	Mouse 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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