

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

## Rat Hepatotoxicity

Cat. no. 249955 UPRN-093ZR

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.

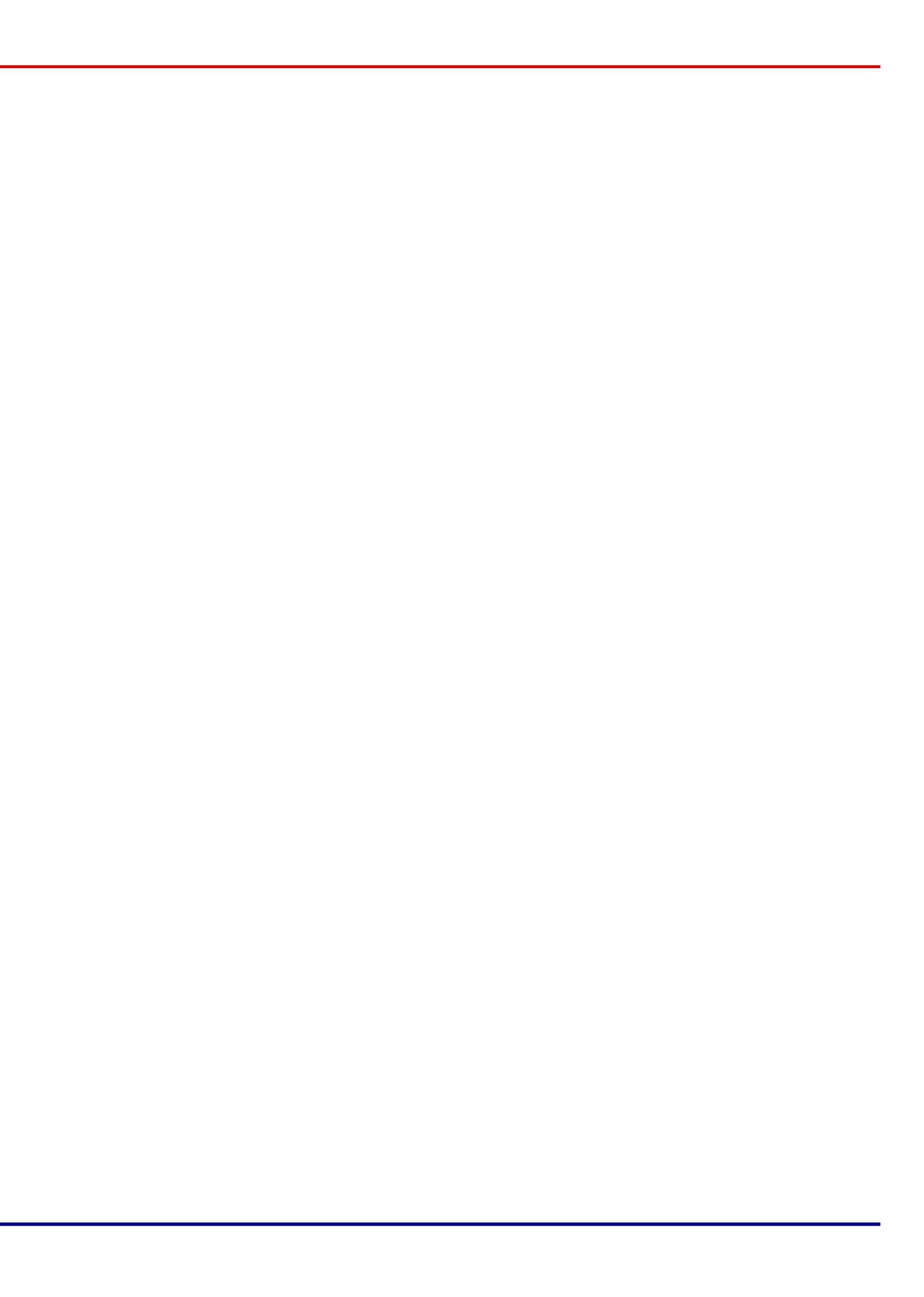
	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	Abcb11	Abcb1a	Abcb5	Abcc2	Abcc3	Aldoa	Apex1	Asah1	Atp8b1	Avpr1a	Bhmt	Btg2
<b>B</b>	Car3	Casp3	Ccng1	RGD1565355	Cd68	Cdc14b	Cdkn1a	Col4a1	Cry1l	Cxcl12	Cyp1a2	Ddit4l
<b>C</b>	Ddx39a	Dnajb11	Dnajc3	Fabp1	Fads1	Emc9	Fasn	Fmo1	Timm10b	Gadd45a	Gclc	Gsr
<b>D</b>	Hao2	Hmox1	Hpn	Hyou1	Icam1	Igfals	Il6st	Ipo4	Krt18	Krt8	L2hgdh	Lgr5
<b>E</b>	Lpl	Lss	Maob	Map3k6	AABR0700669 1.1	Mcm10	AABR0703583 9.1	Mrs18b	Nqo1	Nus1	Osmr	Slc51a
<b>F</b>	Pdyn	Pla2g12a	Ppara	Ptme3	Pygl	Rb1	Rdx	Fam214a	Rhbg	S100a8	Scd	LOC299282
<b>G</b>	Serpine1	Skil	Slc17a3	LOC1009095 95	Slc39a6	Sreb1	Tagln	Thrsp	Cemip2	Txnrd1	Wipi1	Yrhc
<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	UPFR1015665	ENSRNOT00000075107.2	Abcb11	ENSRNOG0000050860	ATP binding cassette subfamily B member 11 Source RGD Symbol Acc 619930
A02	UPFR1045141	ENSRNOT00000037712.5	Abcb1a	ENSRNOG0000008012	ATP binding cassette subfamily B member 4 Source RGD Symbol Acc 620248
A03	UPFR1058651	ENSRNOT00000050893.5	Abcb5	ENSRNOG0000006398	ATP binding cassette subfamily B member 5 Source RGD Symbol Acc 1566342
A04	UPFR1015892	ENSRNOT00000070861.2	Abcc2	ENSRNOG0000046727	ATP binding cassette subfamily C member 2 Source RGD Symbol Acc 2366
A05	UPFR1023753	ENSRNOT00000003977.6	Abcc3	ENSRNOG0000002948	ATP binding cassette subfamily C member 3 Source RGD Symbol Acc 71101
A06	UPFR1020602	ENSRNOT00000088473.1	Aldoa	ENSRNOG0000052802	aldolase, fructose-bisphosphate A Source RGD Symbol Acc 2089
A07	UPFR1104048	ENSRNOT00000087958.1	Apex1	ENSRNOG0000009663	apurinic/aprimidinic endodeoxyribonuclease 1 Source RGD Symbol Acc 2126
A08	UPFR1105025	ENSRNOT00000013463.4	Asah1	ENSRNOG0000010034	N-acylsphingosine amidohydrolase 1 Source RGD Symbol Acc 621568
A09	UPFR1071046	ENSRNOT00000038652.5	Atp8b1	ENSRNOG0000024952	ATPase phospholipid transporting 8B1 Source RGD Symbol Acc 1308488
A10	UPFR1112531	ENSRNOT00000005829.5	Avpr1a	ENSRNOG0000004400	arginine vasopressin receptor 1A Source RGD Symbol Acc 2185
A11	UPFR1057399	ENSRNOT00000015336.3	Bhmt	ENSRNOG0000011200	betaine-homocysteine S-methyltransferase Source RGD Symbol Acc 621496
A12	UPFR1061715	ENSRNOT00000004408.3	Btg2	ENSRNOG0000003300	BTG anti-proliferation factor 2 Source RGD Symbol Acc 2225
B01	UPFR1087048	ENSRNOT00000014180.6	Car3	ENSRNOG0000010079	carbonic anhydrase 3 Source RGD Symbol Acc 2241
B02	UPFR1091664	ENSRNOT00000014095.5	Casp3	ENSRNOG0000010475	caspase 3 Source RGD Symbol Acc 2275
B03	UPFR1113303	ENSRNOT00000079646.1	Ccng1	ENSRNOG0000003256	cyclin G1 Source RGD Symbol Acc 2295
B04	UPFR1013797	ENSRNOT00000008319.8	RGD1565355	ENSRNOG0000040108	similar to fatty acid translocase/CD36 Source RGD Symbol Acc 1565355
B05	UPFR1053600	ENSRNOT00000056918.3	Cd68	ENSRNOG0000037563	Cd68 molecule Source RGD Symbol Acc 1305970
B06	UPFR1122265	ENSRNOT00000079742.1	Cdc14b	ENSRNOG0000018999	cell division cycle 14B Source RGD Symbol Acc 1311163
B07	UPFR1028644	ENSRNOT00000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B08	UPFR1018897	ENSRNOT00000057386.2	Col4a1	ENSRNOG0000016281	collagen type IV alpha 1 chain Source RGD Symbol Acc 1307148
B09	UPFR1110082	ENSRNOT00000012093.3	Cry11	ENSRNOG0000008989	crystallin, lambda 1 Source RGD Symbol Acc 631427
B10	UPFR1044005	ENSRNOT00000066670.3	Cxcl12	ENSRNOG0000013589	C-X-C motif chemokine ligand 12 Source RGD Symbol Acc 3651
B11	UPFR1096006	ENSRNOT00000021653.7	Cyp1a2	ENSRNOG0000016173	cytochrome P450, family 1, subfamily a, polypeptide 2 Source RGD Symbol Acc 2459
B12	UPFR1023502	ENSRNOT00000013661.4	Ddit4l	ENSRNOG0000010047	DNA-damage-inducible transcript 4-like 2 Source RGD Symbol Acc 619738
C01	UPFR1047672	ENSRNOT00000090312.1	Ddx39a	ENSRNOG0000004373	DEd-box helicase 39A Source RGD Symbol Acc 619920
C02	UPFR1027679	ENSRNOT00000002462.6	Dnajb11	ENSRNOG0000001803	DnaJ heat shock protein family (Hsp40) member B11 Source RGD Symbol Acc 1307373
C03	UPFR1032628	ENSRNOT00000014182.5	Dnajc3	ENSRNOG0000010352	DnaJ heat shock protein family (Hsp40) member C3 Source RGD Symbol Acc 708518
C04	UPFR1068726	ENSRNOT00000008840.5	Fabp1	ENSRNOG0000006675	fatty acid binding protein 1 Source RGD Symbol Acc 2590
C05	UPFR1023626	ENSRNOT00000027834.4	Fads1	ENSRNOG0000020480	fatty acid desaturase 1 Source RGD Symbol Acc 621678
C06	UPFR1033861	ENSRNOT00000026001.5	Emc9	ENSRNOG0000019162	ER membrane protein complex subunit 9 Source RGD Symbol Acc 1308113
C07	UPFR1036900	ENSRNOT00000073321.2	Fasn	ENSRNOG0000045636	fatty acid synthase Source RGD Symbol Acc 620665
C08	UPFR1112930	ENSRNOT00000081551.1	Fmo1	ENSRNOG0000034191	flavin containing monooxygenase 1 Source RGD Symbol Acc 2622
C09	UPFR1066279	ENSRNOT00000076631.1	Timm10b	ENSRNOG0000050846	translocase of inner mitochondrial membrane 10B Source RGD Symbol Acc 71097
C10	UPFR1092990	ENSRNOT00000007698.6	Gadd45a	ENSRNOG0000005615	growth arrest and DNA-damage-inducible, alpha Source RGD Symbol Acc 2654
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1065988	033196.3	Gclc	000006302	glutamate-cysteine ligase, catalytic subunit Source RGD Symbol Acc 619868
C12	UPFR1080300	ENSRNOT00000090036.1	Gsr	ENSRNOG0000014915	glutathione-disulfide reductase Source RGD Symbol Acc 621747
D01	UPFR1048965	ENSRNOT00000091444.1	Hao2	ENSRNOG0000019470	hydroxyacid oxidase 2 Source RGD Symbol Acc 70972
D02	UPFR1040868	ENSRNOT00000019192.6	Hmox1	ENSRNOG0000014117	heme oxygenase 1 Source RGD Symbol Acc 2806
D03	UPFR1106487	ENSRNOT00000028644.6	Hpn	ENSRNOG0000021097	hepsin Source RGD Symbol Acc 61982
D04	UPFR1053879	ENSRNOT00000044613.4	Hyou1	ENSRNOG0000010944	hypoxia up-regulated 1 Source RGD Symbol Acc 621146
D05	UPFR1031281	ENSRNOT00000028066.5	Icam1	ENSRNOG0000020679	intercellular adhesion molecule 1 Source RGD Symbol Acc 2857
D06	UPFR1121565	ENSRNOT00000020233.5	Igfals	ENSRNOG0000015061	insulin-like growth factor binding protein, acid labile subunit Source RGD Symbol Acc 68429
D07	UPFR1023505	ENSRNOT00000018877.7	Il6st	ENSRNOG0000013963	interleukin 6 signal transducer Source RGD Symbol Acc 2903
D08	UPFR1067063	ENSRNOT00000026552.6	Ipo4	ENSRNOG0000019553	importin 4 Source RGD Symbol Acc 1305206
D09	UPFR1087499	ENSRNOT00000073951.2	Krt18	ENSRNOG0000047393	keratin 18 Source RGD Symbol Acc 619935
D10	UPFR1027596	ENSRNOT00000038480.4	Krt8	ENSRNOG0000009779	keratin 8 Source RGD Symbol Acc 2984
D11	UPFR1045170	ENSRNOT00000006473.4	L2hgdh	ENSRNOG0000004857	L-2-hydroxyglutarate dehydrogenase Source RGD Symbol Acc 1306250
D12	UPFR1117807	ENSRNOT00000005814.4	Lgr5	ENSRNOG0000004221	leucine rich repeat containing G protein coupled receptor 5 Source RGD Symbol Acc 1307733
E01	UPFR1016556	ENSRNOT00000016543.3	Lpl	ENSRNOG0000012181	lipoprotein lipase Source RGD Symbol Acc 3017
E02	UPFR1112409	ENSRNOT00000081903.1	Lss	ENSRNOG0000054549	lanosterol synthase Source RGD Symbol Acc 620955
E03	UPFR1081997	ENSRNOT00000044009.5	Maob	ENSRNOG0000029778	monoamine oxidase B Source RGD Symbol Acc 3041
E04	UPFR1059172	ENSRNOT00000012463.5	Map3k6	ENSRNOG0000008936	mitogen-activated protein kinase kinase kinase 6 Source RGD Symbol Acc 1304625
E05	UPFR1080471	ENSRNOT00000005984.5	AABR07006691.1	ENSRNOG0000011637	
E06	UPFR1081383	ENSRNOT00000024178.6	Mcm10	ENSRNOG0000017981	minichromosome maintenance 10 replication initiation factor Source RGD Symbol Acc 1311330
E07	UPFR1062720	ENSRNOT00000071067.2	AABR07035839.1	ENSRNOG0000046171	
E08	UPFR1018808	ENSRNOT00000001058.6	Mrps18b	ENSRNOG0000000804	mitochondrial ribosomal protein S18B Source RGD Symbol Acc 1302998
E09	UPFR1111217	ENSRNOT00000017174.5	Nqo1	ENSRNOG0000012772	NAD(P)H quinone dehydrogenase 1 Source RGD Symbol Acc 2503
E10	UPFR1041117	ENSRNOT00000000467.6	Nus1	ENSRNOG0000000411	NUS1 dehydrodolichyl diphosphate synthase subunit Source RGD Symbol Acc 1307879
E11	UPFR1062541	ENSRNOT00000080677.1	Osmr	ENSRNOG0000033192	oncostatin M receptor Source RGD Symbol Acc 1302983
E12	UPFR1027869	ENSRNOT00000002405.5	Slc51a	ENSRNOG0000001765	solute carrier family 51, alpha subunit Source RGD Symbol Acc 1311100
F01	UPFR1018344	ENSRNOT00000037576.3	Pdyn	ENSRNOG0000026036	prodynorphin Source RGD Symbol Acc 62054
F02	UPFR1016426	ENSRNOT00000080183.1	Pla2g12a	ENSRNOG0000057470	phospholipase A2, group XIA Source RGD Symbol Acc 1304662
F03	UPFR1039308	ENSRNOT00000030082.2	Ppara	ENSRNOG0000021463	peroxisome proliferator activated receptor alpha Source RGD Symbol Acc 3369
F04	UPFR1032864	ENSRNOT00000076727.1	Psmc3	ENSRNOG0000051344	proteasome activator subunit 3 Source RGD Symbol Acc 1306996
F05	UPFR1053288	ENSRNOT00000009183.5	Pygl	ENSRNOG0000006388	glycogen phosphorylase L Source RGD Symbol Acc 620687
F06	UPFR1039430	ENSRNOT00000021752.5	Rb1	ENSRNOG0000016029	RB transcriptional corepressor 1 Source RGD Symbol Acc 3540
F07	UPFR1114083	ENSRNOT00000034924.5	Rdx	ENSRNOG0000012237	radixin Source RGD Symbol Acc 1359472
F08	UPFR1040551	ENSRNOT00000080608.1	Fam214a	ENSRNOG0000058522	family with sequence similarity 214, member A Source RGD Symbol Acc 1310552
F09	UPFR1115222	ENSRNOT00000092567.1	Rhbg	ENSRNOG0000019412	Rh family B glycoprotein Source RGD Symbol Acc 727813
F10	UPFR1086842	ENSRNOT00000015473.3	S100a8	ENSRNOG0000011557	S100 calcium binding protein A8 Source RGD Symbol Acc 620265

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1069413	ENSRNOT00000018447.5	Scd	ENSRNOG0000013552	stearoyl-CoA desaturase Source RGD Symbol Acc 621176
F12	UPFR1038357	ENSRNOT00000082680.1	LOC299282	ENSRNOG0000010478	Serine protease inhibitor Source RGD Symbol Acc 3745
G01	UPFR1051798	ENSRNOT00000001916.2	Serpine1	ENSRNOG0000001414	serpin family E member 1 Source RGD Symbol Acc 3249
G02	UPFR1034156	ENSRNOT00000013191.5	Skil	ENSRNOG0000009899	SKI-like proto-oncogene Source RGD Symbol Acc 621399
G03	UPFR1040800	ENSRNOT00000082719.1	Slc17a3	ENSRNOG0000032745	solute carrier family 17 member 3 Source RGD Symbol Acc 628815
G04	UPFR1014889	ENSRNOT00000085447.1	LOC100909595	ENSRNOG0000008376	solute carrier family 2 member 3 Source RGD Symbol Acc 3706
G05	UPFR1089374	ENSRNOT00000079381.1	Slc39a6	ENSRNOG0000028703	solute carrier family 39 member 6 Source RGD Symbol Acc 1304664
G06	UPFR1104408	ENSRNOT00000004753.5	Srebf1	ENSRNOG0000003463	sterol regulatory element binding transcription factor 1 Source RGD Symbol Acc 69423
G07	UPFR1042915	ENSRNOT00000081737.1	Tagln	ENSRNOG0000017628	transgelin Source RGD Symbol Acc 3723
G08	UPFR1118324	ENSRNOT00000016540.6	Thrsp	ENSRNOG0000012404	thyroid hormone responsive Source RGD Symbol Acc 3859
G09	UPFR1098080	ENSRNOT00000067384.1	Cemip2	ENSRNOG0000012782	cell migration inducing hyaluronidase 2 Source RGD Symbol Acc 1307941
G10	UPFR1022916	ENSRNOT00000013613.7	Txnd1	ENSRNOG0000009088	thioredoxin reductase 1 Source RGD Symbol Acc 61959
G11	UPFR1040874	ENSRNOT00000005172.7	Wipi1	ENSRNOG0000003827	WD repeat domain, phosphoinositide interacting 1 Source RGD Symbol Acc 1307754
G12	UPFR1024480	ENSRNOT00000039870.4	Yrdc	ENSRNOG0000025424	yrdC N(6)-threonylcarbamoyltransferase domain containing Source RGD Symbol Acc 708492
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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