

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

## Rat Male Infertility

Cat. no. 249955 UPRN-165ZA

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>	Acsbg2	Adcy10	Ahr	Akap14	Akap4	Amh	Apob	Ar	AC098547.1	Brdt	Carhsp1	Catsper4
<b>B</b>	Ccnb1	Cd46	Cdo1	Creb1	Creml	Crisp2	Cul3	Cyp19a1	Dazl	Ddx25	Ddx4	Dmrt1
<b>C</b>	Dnajb8	Dnajc28	Eif2b4	Eif4g3	Fos	Fbxo5	Fos	Gli3	Adgrg2	Gpx1	Hdac1	Hmax1
<b>D</b>	Hsd17b7	Hsf2	Hspa4l	Ilf6	Kihl10	Lama5	Lep	Lhcgr	Lmna	Mcm8	Mllt3	Muc1
<b>E</b>	Ndufs7	Ntkbia	Npc2	Odf1	Park7	Pcsk4	Pdzd8	Pgk2	Pin1	Pswil1	Plcz1	Pole
<b>F</b>	Prdx3	Prm1	Prm2	Serpina5	Slc26a8	Smarca2	Sod1	Sod2	Spo11	Spp1	Srpk1	Stag3
<b>G</b>	Sycp3	Tap1	Tbp	Tcp11	Tex11	Tnp1	LOC1036901 31	Trim36	Tsga10	Ubp2	Uchl1	Zp3
<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	UPFR1022555	ENSRNOT00000074555.2	Acsbg2	ENSRNOG0000045947	acyl-CoA synthetase bubblemug family member 2 Source RGD Symbol Acc 1588580
A02	UPFR1086288	ENSRNOT00000082677.1	Adcy10	ENSRNOG0000053410	adenylate cyclase 10 Source RGD Symbol Acc 708450
A03	UPFR1105470	ENSRNOT00000006618.7	Ahr	ENSRNOG0000004342	aryl hydrocarbon receptor Source RGD Symbol Acc 2074
A04	UPFR1018435	ENSRNOT00000009123.5	Akap14	ENSRNOG0000006899	A-kinase anchoring protein 14 Source RGD Symbol Acc 708510
A05	UPFR1042075	ENSRNOT00000003939.6	Akap4	ENSRNOG0000002921	A-kinase anchoring protein 4 Source RGD Symbol Acc 620828
A06	UPFR1036093	ENSRNOT00000026220.2	Amh	ENSRNOG0000019377	anti-Mullerian hormone Source RGD Symbol Acc 2108
A07	UPFR1053925	ENSRNOT00000046811.4	Apob	ENSRNOG0000005542	apolipoprotein B Source RGD Symbol Acc 2129
A08	UPFR1020040	ENSRNOT00000009129.7	Ar	ENSRNOG0000005639	androgen receptor Source RGD Symbol Acc 2147
A09	UPFR1057620	ENSRNOT00000077454.1	AC098547.1	ENSRNOG0000045877	bromodomain-containing protein 2-like Source NCBI gene Acc 100909544
A10	UPFR1120274	ENSRNOT00000080901.1	Brdt	ENSRNOG0000002073	bromodomain, testis-specific Source MGI Symbol Acc MGI 1891374
A11	UPFR1109340	ENSRNOT00000003514.5	Carhsp1	ENSRNOG0000002610	calcium regulated heat stable protein 1 Source RGD Symbol Acc 708415
A12	UPFR1116364	ENSRNOT00000021919.6	Catsper4	ENSRNOG0000016312	cation channel, sperm associated 4 Source RGD Symbol Acc 1565213
B01	UPFR1042030	ENSRNOT00000082846.1	Ccnb1	ENSRNOG0000058539	cyclin B1 Source RGD Symbol Acc 2291
B02	UPFR1095746	ENSRNOT00000057151.3	Cd46	ENSRNOG0000007917	CD46 molecule Source RGD Symbol Acc 3061
B03	UPFR1063689	ENSRNOT00000000172.5	Cdo1	ENSRNOG0000000158	cysteine dioxygenase type 1 Source RGD Symbol Acc 69262
B04	UPFR1042088	ENSRNOT00000018326.5	Creb1	ENSRNOG0000013412	cAMP responsive element binding protein 1 Source RGD Symbol Acc 620218
B05	UPFR1048690	ENSRNOT00000020204.6	Crem	ENSRNOG0000014900	cAMP responsive element modulator Source RGD Symbol Acc 2402
B06	UPFR1093140	ENSRNOT00000017996.6	Crisp2	ENSRNOG0000013225	cysteine-rich secretory protein 2 Source RGD Symbol Acc 621653
B07	UPFR1106398	ENSRNOT00000021528.7	Cul3	ENSRNOG0000015633	cullin 3 Source RGD Symbol Acc 1308190
B08	UPFR1043142	ENSRNOT00000000212.7	Cyp19a1	ENSRNOG0000000196	cytochrome P450, family 19, subfamily a, polypeptide 1 Source RGD Symbol Acc 2457
B09	UPFR1050763	ENSRNOT00000066517.2	Dazl	ENSRNOG0000023474	deleted in azoospermia-like Source RGD Symbol Acc 1591714
B10	UPFR1053294	ENSRNOT00000017307.4	Ddx25	ENSRNOG0000012260	DEAD-box helicase 25 Source RGD Symbol Acc 68381
B11	UPFR1040280	ENSRNOT00000013035.6	Ddx4	ENSRNOG0000026686	DEAD-box helicase 4 Source RGD Symbol Acc 1308793
B12	UPFR1082167	ENSRNOT00000085356.1	Dmrt1	ENSRNOG0000016075	doublesex and mab-3 related transcription factor 1 Source RGD Symbol Acc 621640
C01	UPFR1063139	ENSRNOT00000050584.4	Dnajb8	ENSRNOG0000034088	DnaJ heat shock protein family (Hsp40) member B8 Source RGD Symbol Acc 1561981
C02	UPFR1065136	ENSRNOT00000002771.4	Dnajc28	ENSRNOG0000002026	DnaJ heat shock protein family (Hsp40) member C28 Source RGD Symbol Acc 1359589
C03	UPFR1104405	ENSRNOT00000007763.5	Eif2b4	ENSRNOG0000005301	eukaryotic translation initiation factor 2B subunit delta Source RGD Symbol Acc 620208
C04	UPFR1068144	ENSRNOT00000067631.3	Eif4g3	ENSRNOG0000014368	eukaryotic translation initiation factor 4 gamma, 3 Source RGD Symbol Acc 1311370
C05	UPFR1075141	ENSRNOT00000025928.5	Fas	ENSRNOG0000019142	Fas cell surface death receptor Source RGD Symbol Acc 619831
C06	UPFR1090851	ENSRNOT00000029416.6	Fbxo5	ENSRNOG0000024077	F-box protein 5 Source RGD Symbol Acc 1309405
C07	UPFR1045359	ENSRNOT00000010712.3	Fos	ENSRNOG0000008015	Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626
C08	UPFR1075132	ENSRNOT00000081290.1	Gli3	ENSRNOG0000014395	GLI family zinc finger 3 Source RGD Symbol Acc 620272
C09	UPFR1024778	ENSRNOT00000058834.4	Adgrg2	ENSRNOG0000032472	adhesion G protein-coupled receptor G2 Source RGD Symbol Acc 628618
C10	UPFR1108384	ENSRNOT00000073247.2	Gpx1	ENSRNOG0000048812	glutathione peroxidase 1 Source RGD Symbol Acc 2729
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1113247	012854.6	Hdac1	000009568	histone deacetylase 1 Source RGD Symbol Acc 1309799
C12	UPFR1040868	ENSRNOT00000 019192.6	Hmox1	ENSRNOG00 000014117	heme oxygenase 1 Source RGD Symbol Acc 2806
D01	UPFR1081191	ENSRNOT00000 003812.5	Hsd17b7	ENSRNOG00 000002826	hydroxysteroid (17-beta) dehydrogenase 7 Source RGD Symbol Acc 2837
D02	UPFR1101311	ENSRNOT00000 001059.4	Hsf2	ENSRNOG00 000000808	heat shock transcription factor 2 Source RGD Symbol Acc 68395
D03	UPFR1106328	ENSRNOT00000 015474.6	Hspa4l	ENSRNOG00 000010819	heat shock protein family A (Hsp70) member 4 like Source RGD Symbol Acc 1306528
D04	UPFR1122227	ENSRNOT00000 016289.4	Il16	ENSRNOG00 000011680	interleukin 16 Source RGD Symbol Acc 1583872
D05	UPFR1111297	ENSRNOT00000 022687.4	Klhl10	ENSRNOG00 000016749	kelch-like family member 10 Source RGD Symbol Acc 1303290
D06	UPFR1017724	ENSRNOT00000 081226.1	Lama5	ENSRNOG00 000053691	laminin subunit alpha 5 Source RGD Symbol Acc 621023
D07	UPFR1089630	ENSRNOT00000 071926.1	Lep	ENSRNOG00 000045797	leptin Source RGD Symbol Acc 3000
D08	UPFR1053801	ENSRNOT00000 022481.7	Lhcgr	ENSRNOG00 000016712	lutetizing hormone/choriogonadotropin receptor Source RGD Symbol Acc 3007
D09	UPFR1040557	ENSRNOT00000 026705.6	Lmna	ENSRNOG00 000019638	lamin A/C Source RGD Symbol Acc 620456
D10	UPFR1095386	ENSRNOT00000 028898.5	Mcm8	ENSRNOG00 000021272	minichromosome maintenance 8 homologous recombination repair factor Source RGD Symbol Acc 1305218
D11	UPFR1075117	ENSRNOT00000 015094.6	Mllt3	ENSRNOG00 000011280	MLLT3, super elongation complex subunit Source RGD Symbol Acc 620940
D12	UPFR1039208	ENSRNOT00000 027850.7	Muc1	ENSRNOG00 000020539	mucin 1, cell surface associated Source RGD Symbol Acc 3122
E01	UPFR1050680	ENSRNOT00000 039728.5	Ndufs7	ENSRNOG00 000024568	NADH ubiquinone oxidoreductase core subunit S7 Source RGD Symbol Acc 1310013
E02	UPFR1024664	ENSRNOT00000 009894.6	Nfkbia	ENSRNOG00 000007390	NFKB inhibitor alpha Source RGD Symbol Acc 3171
E03	UPFR1065940	ENSRNOT00000 016076.5	Npc2	ENSRNOG00 000012062	NPC intracellular cholesterol transporter 2 Source RGD Symbol Acc 628756
E04	UPFR1053789	ENSRNOT00000 008700.5	Odf1	ENSRNOG00 000006578	outer dense fiber of sperm tails 1 Source RGD Symbol Acc 3228
E05	UPFR1045325	ENSRNOT00000 091206.1	Park7	ENSRNOG00 000018289	Parkinsonism associated deglycase Source RGD Symbol Acc 621808
E06	UPFR1109680	ENSRNOT00000 022358.7	Pcsk4	ENSRNOG00 000016405	proprotein convertase subtilisin/kexin type 4 Source RGD Symbol Acc 620325
E07	UPFR1048510	ENSRNOT00000 068082.1	Pdzd8	ENSRNOG00 000009460	PDZ domain containing 8 Source RGD Symbol Acc 1308622
E08	UPFR1042344	ENSRNOT00000 018177.5	Pgk2	ENSRNOG00 000013600	phosphoglycerate kinase 2 Source RGD Symbol Acc 1306627
E09	UPFR1040697	ENSRNOT00000 027818.5	Pin1	ENSRNOG00 000020474	peptidylprolyl cis/trans isomerase, NIMA-interacting 1 Source RGD Symbol Acc 1310299
E10	UPFR1112798	ENSRNOT00000 001238.5	Piwil1	ENSRNOG00 000000934	piwi-like RNA-mediated gene silencing 1 Source RGD Symbol Acc 1306980
E11	UPFR1037696	ENSRNOT00000 011376.4	Plcz1	ENSRNOG00 000008514	phospholipase C, zeta 1 Source RGD Symbol Acc 1359567
E12	UPFR1028452	ENSRNOT00000 067453.3	Pole	ENSRNOG00 000037449	DNA polymerase epsilon, catalytic subunit Source RGD Symbol Acc 1594540
F01	UPFR1110213	ENSRNOT00000 015186.5	Prdx3	ENSRNOG00 000010958	peroxiredoxin 3 Source RGD Symbol Acc 620040
F02	UPFR1098491	ENSRNOT00000 003420.3	Prm1	ENSRNOG00 000002532	protamine 1 Source RGD Symbol Acc 1583873
F03	UPFR1126533	ENSRNOT00000 003450.2	Prm2	ENSRNOG00 000002539	protamine 2 Source RGD Symbol Acc 3409
F04	UPFR1102996	ENSRNOT00000 013138.6	Serpina5	ENSRNOG00 000009855	serpin family A member 5 Source RGD Symbol Acc 619817
F05	UPFR1015507	ENSRNOT00000 059264.4	Slc26a8	ENSRNOG00 000000512	solute carrier family 26 member 8 Source RGD Symbol Acc 1308898
F06	UPFR1107015	ENSRNOT00000 080124.1	Smarca2	ENSRNOG00 000011931	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 Source RGD Symbol Acc 1302988
F07	UPFR1062096	ENSRNOT00000 002885.6	Sod1	ENSRNOG00 000002115	superoxide dismutase 1 Source RGD Symbol Acc 3731
F08	UPFR1090502	ENSRNOT00000 025794.4	Sod2	ENSRNOG00 000019048	superoxide dismutase 2 Source RGD Symbol Acc 3732
F09	UPFR1106135	ENSRNOT00000 081823.1	Spo11	ENSRNOG00 000006732	SPO11, initiator of meiotic double stranded breaks Source RGD Symbol Acc 1306454
F10	UPFR1100110	ENSRNOT00000 067875.4	Spp1	ENSRNOG00 000043451	secreted phosphoprotein 1 Source RGD Symbol Acc 3752

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1062949	ENSRNOT0000000612.7	Srpk1	ENSRNOG0000000511	SRSF protein kinase 1 Source RGD Symbol Acc 1308272
F12	UPFR1052183	ENSRNOT00000092039.1	Stag3	ENSRNOG0000001360	stromal antigen 3 Source RGD Symbol Acc 621333
G01	UPFR1013326	ENSRNOT0000007088.6	Sycp3	ENSRNOG0000005270	synaptonemal complex protein 3 Source RGD Symbol Acc 3795
G02	UPFR1038592	ENSRNOT00000000529.6	Tap1	ENSRNOG0000000457	transporter 1, ATP binding cassette subfamily B member Source RGD Symbol Acc 3817
G03	UPFR1172897	ENSRNOT00000002038.4	Tbp	ENSRNOG0000001489	TATA box binding protein Source RGD Symbol Acc 67398
G04	UPFR1115129	ENSRNOT00000045044.4	Tcp11	ENSRNOG0000000499	t-complex 11 Source RGD Symbol Acc 1359387
G05	UPFR1115977	ENSRNOT00000041731.6	Tex11	ENSRNOG0000025672	testis expressed 11 Source RGD Symbol Acc 1560239
G06	UPFR1053613	ENSRNOT00000023769.4	Tnp1	ENSRNOG0000017611	transition protein 1 Source RGD Symbol Acc 3884
G07	UPFR1112101	ENSRNOT00000066891.2	LOC103690131	ENSRNOG0000042441	tumor protein D55-like Source RGD Symbol Acc 9223097
G08	UPFR1095248	ENSRNOT00000022294.7	Trim36	ENSRNOG0000016612	tripartite motif-containing 36 Source RGD Symbol Acc 1308714
G09	UPFR1082704	ENSRNOT00000080011.1	Tsga10	ENSRNOG0000058681	testis specific 10 Source RGD Symbol Acc 621142
G10	UPFR1105863	ENSRNOT00000080295.1	Ubap2	ENSRNOG0000052087	ubiquitin-associated protein 2 Source RGD Symbol Acc 1311717
G11	UPFR1110967	ENSRNOT00000003248.5	Uchl1	ENSRNOG0000002343	ubiquitin C-terminal hydrolase L1 Source RGD Symbol Acc 3928
G12	UPFR1080130	ENSRNOT00000001952.4	Zp3	ENSRNOG0000001434	zona pellucida glycoprotein 3 Source RGD Symbol Acc 620606
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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