

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

## Rat Type I Interferon Response

Cat. no. 249955 UPRN-016ZA

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	Adar	Adm	Bog3	Bst2	Casp1	Cav1	Cd2	Cd4	Ccl5	Cd38	Cd69	Cd70
B	Cd80	Cd86	Cd9	Cdc37	Cdkn1a	Cdkn1b	Citla	Crp	Cxcl10	Cxcl9	Ddx58	Eif2ak2
C	Gbp4	Mnda	Ifi30	Ifi1	Ifi2	Ifi3	Ifitm1	Ifitm2	Ifitm3	Ifna5	Ifna2	Ifna4
D	Ifnar1	Ifnb1	Il10	Il15	Il1r1	Il1rn	Il6	Irf1	Irf2	Irf3	Irf5	Irf7
E	Irf9	Isg15	Isg20	Jak1	Jak2	Mal	Met	Mx1	Mx2	Myd88	Nmi	Nos2
F	Oas1a	Oas1b	Oas2	Pml	Prkcz	Psme2	RT1-Ha	AC120486.5	RT1-M3-1	Slc11a1	Socs1	Sp100
G	Stat1	Stat2	Stat3	Top1	Timp1	Tlr3	Tlr7	Tlr9	Tnfrsf10	Traf3	Tyk2	Vegfa
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	UPFR1097474	ENSRNOT00000028181.5	Adar	ENSRNOG0000020744	adenosine deaminase, RNA-specific Source RGD Symbol Acc 71099
A02	UPFR1061154	ENSRNOT00000036718.1	Adm	ENSRNOG0000027030	adrenomedullin Source RGD Symbol Acc 2047
A03	UPFR1093465	ENSRNOT00000027616.6	Bag3	ENSRNOG0000020298	Bcl2-associated athanogene 3 Source RGD Symbol Acc 1307794
A04	UPFR1101250	ENSRNOT00000091906.1	Bsf2	ENSRNOG0000059900	bone marrow stromal cell antigen 2 Source RGD Symbol Acc 727849
A05	UPFR1052168	ENSRNOT00000009993.6	Casp1	ENSRNOG0000007372	caspase 1 Source RGD Symbol Acc 2274
A06	UPFR1012931	ENSRNOT00000078250.1	Cav1	ENSRNOG0000056836	caveolin 1 Source RGD Symbol Acc 2280
A07	UPFR1014050	ENSRNOT00000009448.3	Ccl2	ENSRNOG0000007159	C-C motif chemokine ligand 2 Source RGD Symbol Acc 3645
A08	UPFR1110783	ENSRNOT00000015199.3	Ccl4	ENSRNOG0000011406	C-C motif chemokine ligand 4 Source RGD Symbol Acc 620441
A09	UPFR1019085	ENSRNOT00000014865.6	Ccl5	ENSRNOG0000010906	C-C motif chemokine ligand 5 Source RGD Symbol Acc 69069
A10	UPFR1085134	ENSRNOT00000004121.4	Cd38	ENSRNOG0000003069	CD38 molecule Source RGD Symbol Acc 2303
A11	UPFR1072926	ENSRNOT00000091644.1	Cd69	ENSRNOG0000056783	Cd69 molecule Source RGD Symbol Acc 61318
A12	UPFR1090606	ENSRNOT00000070806.1	Cd70	ENSRNOG0000051015	Cd70 molecule Source RGD Symbol Acc 1588573
B01	UPFR1064878	ENSRNOT00000089625.1	Cd80	ENSRNOG000001527	Cd80 molecule Source RGD Symbol Acc 2314
B02	UPFR1107778	ENSRNOT00000078936.1	Cd86	ENSRNOG0000038835	CD86 molecule Source RGD Symbol Acc 628714
B03	UPFR1081975	ENSRNOT00000026633.7	Cd9	ENSRNOG0000019556	CD9 molecule Source RGD Symbol Acc 2318
B04	UPFR1104383	ENSRNOT00000042314.3	Cdc37	ENSRNOG0000033426	cell division cycle 37 Source RGD Symbol Acc 71006
B05	UPFR1028644	ENSRNOT00000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B06	UPFR1069360	ENSRNOT00000049848.1	Cdkn1b	ENSRNOG0000007249	cyclin-dependent kinase inhibitor 1B Source RGD Symbol Acc 69062
B07	UPFR1117820	ENSRNOT00000085479.1	Ciita	ENSRNOG0000002659	class II, major histocompatibility complex, transactivator Source RGD Symbol Acc 619813
B08	UPFR1072132	ENSRNOT00000000058.6	Crp	ENSRNOG0000000053	C-reactive protein Source RGD Symbol Acc 2411
B09	UPFR1049597	ENSRNOT00000003075.7	Cxcl10	ENSRNOG0000022256	C-X-C motif chemokine ligand 10 Source RGD Symbol Acc 620209
B10	UPFR1089821	ENSRNOT00000003082.7	Cxcl9	ENSRNOG0000022242	C-X-C motif chemokine ligand 9 Source RGD Symbol Acc 628798
B11	UPFR1016970	ENSRNOT00000060765.4	Ddx58	ENSRNOG0000006384	DEXD/H-box helicase 58 Source RGD Symbol Acc 1309460
B12	UPFR1062762	ENSRNOT00000072810.2	Eif2ak2	ENSRNOG0000048315	eukaryotic translation initiation factor 2-alpha kinase 2 Source RGD Symbol Acc 3402
C01	UPFR1014679	ENSRNOT00000022648.5	Gbp4	ENSRNOG0000028768	guanylate binding protein 4 Source RGD Symbol Acc 1310579
C02	UPFR1048828	ENSRNOT00000036040.3	Mnda	ENSRNOG0000003486	myeloid cell nuclear differentiation antigen Source RGD Symbol Acc 1306089
C03	UPFR1060168	ENSRNOT00000026225.7	Ifi30	ENSRNOG0000019387	IFI30, lysosomal thiol reductase Source RGD Symbol Acc 1310758
C04	UPFR1115052	ENSRNOT00000025770.4	Ifi1	ENSRNOG0000019050	interferon-induced protein with tetratricopeptide repeats 1 Source RGD Symbol Acc 620599
C05	UPFR1035079	ENSRNOT00000054757.3	Ifi2	ENSRNOG0000036604	interferon-induced protein with tetratricopeptide repeats 2 Source RGD Symbol Acc 1307804
C06	UPFR1045417	ENSRNOT00000031025.4	Ifi3	ENSRNOG0000022839	interferon-induced protein with tetratricopeptide repeats 3 Source RGD Symbol Acc 1359681
C07	UPFR1074893	ENSRNOT00000005645.6	Ifitm1	ENSRNOG0000004273	interferon induced transmembrane protein 1 Source RGD Symbol Acc 1307601
C08	UPFR1107122	ENSRNOT00000020216.3	Ifitm2	ENSRNOG0000014936	interferon induced transmembrane protein 2 Source RGD Symbol Acc 69332
C09	UPFR1051479	ENSRNOT00000020265.7	Ifitm3	ENSRNOG0000015078	interferon induced transmembrane protein 3 Source RGD Symbol Acc 1595844
C10	UPFR1014391	ENSRNOT00000049705.1	Ifna5	ENSRNOG0000031046	interferon, alpha 5 Source RGD Symbol Acc 1359312
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1086334	045433.4	Ifna2	000058365	interferon alpha 2 Source RGD Symbol Acc 1311425
C12	UPFR1115006	ENSRNOT00000 046207.3	Ifna4	ENSRNOG00 000033823	interferon, alpha 4 Source RGD Symbol Acc 1306334
D01	UPFR1118453	ENSRNOT00000 091472.1	Ifnar1	ENSRNOG00 000028594	interferon alpha and beta receptor subunit 1 Source RGD Symbol Acc 1305399
D02	UPFR1098156	ENSRNOT00000 008224.2	Ifnb1	ENSRNOG00 000006268	interferon beta 1 Source RGD Symbol Acc 2865
D03	UPFR1113235	ENSRNOT00000 006246.5	Il10	ENSRNOG00 000004647	interleukin 10 Source RGD Symbol Acc 2886
D04	UPFR1102147	ENSRNOT00000 004590.6	Il15	ENSRNOG00 000003439	interleukin 15 Source RGD Symbol Acc 2887
D05	UPFR1025024	ENSRNOT00000 082146.1	Il1r1	ENSRNOG00 000014504	interleukin 1 receptor type 1 Source RGD Symbol Acc 2892
D06	UPFR1086251	ENSRNOT00000 007949.6	Il1rn	ENSRNOG00 000005871	interleukin 1 receptor antagonist Source RGD Symbol Acc 621159
D07	UPFR1098910	ENSRNOT00000 013732.6	Il6	ENSRNOG00 000010278	interleukin 6 Source RGD Symbol Acc 2901
D08	UPFR1043289	ENSRNOT00000 010968.6	Irf1	ENSRNOG00 000008144	interferon regulatory factor 1 Source RGD Symbol Acc 2920
D09	UPFR1026836	ENSRNOT00000 013118.6	Irf2	ENSRNOG00 000009824	interferon regulatory factor 2 Source RGD Symbol Acc 1304922
D10	UPFR1094379	ENSRNOT00000 027786.6	Irf3	ENSRNOG00 000043388	interferon regulatory factor 3 Source RGD Symbol Acc 1549774
D11	UPFR1052261	ENSRNOT00000 010001.6	Irf5	ENSRNOG00 000007437	interferon regulatory factor 5 Source RGD Symbol Acc 1310447
D12	UPFR1018556	ENSRNOT00000 023504.6	Irf7	ENSRNOG00 000017414	interferon regulatory factor 7 Source RGD Symbol Acc 1307828
E01	UPFR1076011	ENSRNOT00000 026364.4	Irf9	ENSRNOG00 000019478	interferon regulatory factor 9 Source RGD Symbol Acc 1308766
E02	UPFR1047702	ENSRNOT00000 039263.5	Isg15	ENSRNOG00 000021802	ISG15 ubiquitin-like modifier Source RGD Symbol Acc 1310312
E03	UPFR1060298	ENSRNOT00000 085570.1	Isg20	ENSRNOG00 000054561	interferon stimulated exonuclease gene 20 Source RGD Symbol Acc 1306407
E04	UPFR1050030	ENSRNOT00000 064542.1	Jak1	ENSRNOG00 000011157	Janus kinase 1 Source RGD Symbol Acc 69056
E05	UPFR1096799	ENSRNOT00000 087011.1	Jak2	ENSRNOG00 000059968	Janus kinase 2 Source RGD Symbol Acc 2939
E06	UPFR1113824	ENSRNOT00000 020870.2	Mal	ENSRNOG00 000015445	mal, T-cell differentiation protein Source RGD Symbol Acc 3037
E07	UPFR1071342	ENSRNOT00000 086902.1	Met	ENSRNOG00 000052745	MET proto-oncogene, receptor tyrosine kinase Source RGD Symbol Acc 3082
E08	UPFR1095892	ENSRNOT00000 039876.5	Mx1	ENSRNOG00 000001959	myxovirus (influenza virus) resistance 1 Source RGD Symbol Acc 3127
E09	UPFR1059476	ENSRNOT00000 083067.1	Mx2	ENSRNOG00 000001963	MX dynamin like GTPase 2 Source RGD Symbol Acc 628821
E10	UPFR1120879	ENSRNOT00000 018341.5	Myd88	ENSRNOG00 000013634	MYD88, innate immune signal transduction adaptor Source RGD Symbol Acc 735043
E11	UPFR1028422	ENSRNOT00000 030373.4	Nmi	ENSRNOG00 000027502	N-myc (and STAT) interactor Source RGD Symbol Acc 1311721
E12	UPFR1092405	ENSRNOT00000 016133.6	Nos2	ENSRNOG00 000057443	similar to Nitric oxide synthase, inducible (NOS type II) (Inducible NO synthase) (Inducible NOS) (iNOS) Source RGD Symbol Acc 1598227
F01	UPFR1056209	ENSRNOT00000 038426.6	Oas1a	ENSRNOG00 000001369	2 -5 oligoadenylate synthetase 1A Source RGD Symbol Acc 621760
F02	UPFR1078440	ENSRNOT00000 048782.4	Oas1b	ENSRNOG00 000033220	2 -5 oligoadenylate synthetase 1K Source RGD Symbol Acc 1359279
F03	UPFR1071966	ENSRNOT00000 072024.2	Oas2	ENSRNOG00 000049282	2 -5 oligoadenylate synthetase 2 Source RGD Symbol Acc 1359697
F04	UPFR1047821	ENSRNOT00000 043434.6	Pml	ENSRNOG00 000008400	promyelocytic leukemia Source RGD Symbol Acc 1562602
F05	UPFR1112897	ENSRNOT00000 021285.6	Prkcz	ENSRNOG00 000015480	protein kinase C, zeta Source RGD Symbol Acc 3399
F06	UPFR1042207	ENSRNOT00000 026279.7	Psme2	ENSRNOG00 000019246	proteasome activator subunit 2 Source RGD Symbol Acc 3430
F07	UPFR1031176	ENSRNOT00000 036900.4	RT1-Ha	ENSRNOG00 000026669	RT1 class II, locus Ha Source RGD Symbol Acc 1595921
F08	UPFR1027818	ENSRNOT00000 050246.4	AC120486. 5	ENSRNOG00 000054295	
F09	UPFR1093394	ENSRNOT00000 000990.5	RT1-M3-1	ENSRNOG00 000000763	RT1 class Ib, locus M3, gene 1 Source RGD Symbol Acc 3494
F10	UPFR1016004	ENSRNOT00000 057472.3	Slc11a1	ENSRNOG00 000014956	solute carrier family 11 member 1 Source RGD Symbol Acc 1601463

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1106307	ENSRNOT00000003458.3	Socs1	ENSRNOG0000002568	suppressor of cytokine signaling 1 Source RGD Symbol Acc 69272
F12	UPFR1087359	ENSRNOT00000034152.6	Sp100	ENSRNOG0000022769	SP100 nuclear antigen Source RGD Symbol Acc 1359550
G01	UPFR1068760	ENSRNOT00000083514.1	Stat1	ENSRNOG0000014079	signal transducer and activator of transcription 4 Source RGD Symbol Acc 1305747
G02	UPFR1019713	ENSRNOT00000049536.4	Stat2	ENSRNOG0000031081	signal transducer and activator of transcription 2 Source RGD Symbol Acc 1311649
G03	UPFR1040072	ENSRNOT00000026760.4	Stat3	ENSRNOG0000019742	signal transducer and activator of transcription 3 Source RGD Symbol Acc 3772
G04	UPFR1038592	ENSRNOT00000000529.6	Tap1	ENSRNOG0000000457	transporter 1, ATP binding cassette subfamily B member Source RGD Symbol Acc 3817
G05	UPFR1060230	ENSRNOT00000013745.7	Timp1	ENSRNOG0000010208	TIMP metalloproteinase inhibitor 1 Source RGD Symbol Acc 621675
G06	UPFR1036867	ENSRNOT00000087986.1	Tlr3	ENSRNOG0000021726	toll-like receptor 3 Source RGD Symbol Acc 735171
G07	UPFR1122279	ENSRNOT00000005620.6	Tlr7	ENSRNOG0000004249	toll-like receptor 7 Source RGD Symbol Acc 1563357
G08	UPFR1099903	ENSRNOT00000074194.1	Tlr9	ENSRNOG0000048161	toll-like receptor 9 Source RGD Symbol Acc 631352
G09	UPFR1107113	ENSRNOT00000017758.5	Tnfsf10	ENSRNOG0000013269	TNF superfamily member 10 Source RGD Symbol Acc 628734
G10	UPFR1120299	ENSRNOT00000077770.1	Traf3	ENSRNOG0000008145	Tnf receptor-associated factor 3 Source RGD Symbol Acc 1304633
G11	UPFR1056755	ENSRNOT00000041678.5	Tyk2	ENSRNOG0000032948	tyrosine kinase 2 Source RGD Symbol Acc 2320469
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.

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