

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

## Rat Cancer Inflammation & Immunity Crosstalk

Cat. no. 249955 UPRN-181ZA

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>	Aicda	Bcl2	Bcl2l1	Ccl2	Ccl20	Ccl21	Ccl22	Ccl28	Ccl4	Ccl5	Ccr1	Ccr10
<b>B</b>	Ccr6	Ccr4	Ccr5	Ccr7	Ccr9	Cd274	Csf1	Csf2	Csf3	Ctla4	Cxcl1	Cxcl10
<b>C</b>	Cxcl11	Cxcl12	Cxcl2	Cxcl6	Cxcl9	Cxcr1	Cxcr2	Cxcr3	Cxcr4	Cxcr5	Ackr3	Egf
<b>D</b>	Egfr	Faslg	Foxp3	Gbp2	Gzma	Gzmb	Hif1a	Ido1	Ifng	Igf1	Il10	Il12a
<b>E</b>	Il12b	Il13	Il15	Il17a	Il1a	Il1b	Il1r1	Il2	Il22	Il23a	Il4	Il6
<b>F</b>	Irf1	Killg	Micb	LOC1036948 77	Myc	Myd88	Nfkb1	Nos2	NEWGENE_13 11658	Ptgs2	RT1-A1	RT1-N2
<b>G</b>	Spp1	Stat1	Stat3	Tgfb1	Tlr2	Tlr3	Tlr4	Tlr7	LOC1036943 80	Tnfrsf10	Tp53	Vegfa
<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	UPFR1080002	ENSRNOT00000020762.7	Aicda	ENSRNOG0000015478	activation-induced cytidine deaminase Source RGD Symbol Acc 1303222
A02	UPFR1082998	ENSRNOT00000003768.2	Bcl2	ENSRNOG0000002791	BCL2, apoptosis regulator Source RGD Symbol Acc 2199
A03	UPFR1047186	ENSRNOT00000010762.7	Bcl2l1	ENSRNOG0000007946	Bcl2-like 1 Source RGD Symbol Acc 2200
A04	UPFR1014050	ENSRNOT00000009448.3	Ccl2	ENSRNOG0000007159	C-C motif chemokine ligand 2 Source RGD Symbol Acc 3645
A05	UPFR1113129	ENSRNOT00000021730.3	Ccl20	ENSRNOG0000015992	C-C motif chemokine ligand 20 Source RGD Symbol Acc 3646
A06	UPFR1022549	ENSRNOT00000023951.6	Ccl21	ENSRNOG0000034290	C-C motif chemokine ligand 21 Source RGD Symbol Acc 1311996
A07	UPFR1070569	ENSRNOT00000022167.3	Ccl22	ENSRNOG0000016535	C-C motif chemokine ligand 22 Source RGD Symbol Acc 619933
A08	UPFR1117093	ENSRNOT00000082614.1	Ccl28	ENSRNOG0000059640	C-C motif chemokine ligand 28 Source RGD Symbol Acc 619937
A09	UPFR1110783	ENSRNOT00000015199.3	Ccl4	ENSRNOG0000011406	C-C motif chemokine ligand 4 Source RGD Symbol Acc 620441
A10	UPFR1019085	ENSRNOT00000014865.6	Ccl5	ENSRNOG0000010906	C-C motif chemokine ligand 5 Source RGD Symbol Acc 69069
A11	UPFR1018077	ENSRNOT00000008772.4	Ccr1	ENSRNOG0000006715	C-C motif chemokine receptor 1 Source RGD Symbol Acc 708446
A12	UPFR1038393	ENSRNOT00000027458.5	Ccr10	ENSRNOG0000020275	C-C motif chemokine receptor 10 Source RGD Symbol Acc 1310716
B01	UPFR1017916	ENSRNOT00000017302.6	Ccr6	ENSRNOG0000012964	C-C motif chemokine receptor 6 Source RGD Symbol Acc 1308562
B02	UPFR1083127	ENSRNOT00000013705.3	Ccr4	ENSRNOG0000010315	C-C motif chemokine receptor 4 Source RGD Symbol Acc 620594
B03	UPFR1023768	ENSRNOT00000082774.1	Ccr5	ENSRNOG0000049115	C-C motif chemokine receptor 5 Source RGD Symbol Acc 620596
B04	UPFR1029602	ENSRNOT00000014163.7	Ccr7	ENSRNOG0000010665	C-C motif chemokine receptor 7 Source RGD Symbol Acc 735151
B05	UPFR1066970	ENSRNOT00000008269.7	Ccr9	ENSRNOG0000006311	C-C motif chemokine receptor 9 Source RGD Symbol Acc 628750
B06	UPFR1029912	ENSRNOT00000034421.6	Cd274	ENSRNOG0000016112	CD274 molecule Source RGD Symbol Acc 1566211
B07	UPFR1022984	ENSRNOT00000081835.1	Csf1	ENSRNOG0000018659	colony stimulating factor 1 Source RGD Symbol Acc 621063
B08	UPFR1084630	ENSRNOT00000032333.3	Csf2	ENSRNOG0000026805	colony stimulating factor 2 Source RGD Symbol Acc 621065
B09	UPFR1037448	ENSRNOT00000011509.3	Csf3	ENSRNOG0000008525	colony stimulating factor 3 Source RGD Symbol Acc 2426
B10	UPFR1019516	ENSRNOT00000091237.1	Ctla4	ENSRNOG0000054129	cytotoxic T-lymphocyte-associated protein 4 Source RGD Symbol Acc 61975
B11	UPFR1056296	ENSRNOT00000003778.3	Cxcl1	ENSRNOG000002802	C-X-C motif chemokine ligand 1 Source RGD Symbol Acc 619869
B12	UPFR1049597	ENSRNOT00000003075.7	Cxcl10	ENSRNOG000002256	C-X-C motif chemokine ligand 10 Source RGD Symbol Acc 620209
C01	UPFR1033909	ENSRNOT00000031667.4	Cxcl11	ENSRNOG000002298	C-X-C motif chemokine ligand 11 Source RGD Symbol Acc 727827
C02	UPFR1044005	ENSRNOT00000066670.3	Cxcl12	ENSRNOG0000013589	C-X-C motif chemokine ligand 12 Source RGD Symbol Acc 3651
C03	UPFR1121790	ENSRNOT00000003745.6	Cxcl2	ENSRNOG0000002792	C-X-C motif chemokine ligand 2 Source RGD Symbol Acc 70069
C04	UPFR1109014	ENSRNOT00000003823.3	Cxcl6	ENSRNOG0000002843	C-X-C motif chemokine ligand 6 Source RGD Symbol Acc 708540
C05	UPFR1089821	ENSRNOT00000003082.7	Cxcl9	ENSRNOG000002242	C-X-C motif chemokine ligand 9 Source RGD Symbol Acc 628798
C06	UPFR1115852	ENSRNOT00000090868.1	Cxcr1	ENSRNOG0000048239	C-X-C motif chemokine receptor 1 Source RGD Symbol Acc 2905
C07	UPFR1078568	ENSRNOT00000019109.2	Cxcr2	ENSRNOG0000014269	C-X-C motif chemokine receptor 2 Source RGD Symbol Acc 2906
C08	UPFR1064685	ENSRNOT00000076210.1	Cxcr3	ENSRNOG0000003305	C-X-C motif chemokine receptor 3 Source RGD Symbol Acc 621528
C09	UPFR1030244	ENSRNOT00000005143.6	Cxcr4	ENSRNOG0000003866	C-X-C motif chemokine receptor 4 Source RGD Symbol Acc 620465
C10	UPFR1083049	ENSRNOT00000016580.3	Cxcr5	ENSRNOG0000012430	C-X-C motif chemokine receptor 5 Source RGD Symbol Acc 62010
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1038104	026558.3	Ackr3	000019622	atypical chemokine receptor 3 Source RGD Symbol Acc 620601
C12	UPFR1045222	ENSRNOT00000 087007.1	Egf	ENSRNOG00 000053979	epidermal growth factor Source RGD Symbol Acc 2542
D01	UPFR1091984	ENSRNOT00000 006087.2	Egfr	ENSRNOG00 000004332	epidermal growth factor receptor Source RGD Symbol Acc 2543
D02	UPFR1108356	ENSRNOT00000 003998.2	Faslg	ENSRNOG00 000002978	Fas ligand Source RGD Symbol Acc 3880
D03	UPFR1116172	ENSRNOT00000 091146.1	Foxp3	ENSRNOG00 000011702	forkhead box P3 Source RGD Symbol Acc 1562112
D04	UPFR1097453	ENSRNOT00000 068683.3	Gbp2	ENSRNOG00 000031743	guanylate binding protein 2 Source RGD Symbol Acc 621810
D05	UPFR1058600	ENSRNOT00000 014134.3	Gzma	ENSRNOG00 000010603	granzyme A Source RGD Symbol Acc 628640
D06	UPFR1035899	ENSRNOT00000 041430.5	Gzmb	ENSRNOG00 000049976	Granzyme B-like 2 Source RGD Symbol Acc 2320097
D07	UPFR1061095	ENSRNOT00000 049725.3	Hif1a	ENSRNOG00 000008292	hypoxia inducible factor 1 subunit alpha Source RGD Symbol Acc 61928
D08	UPFR1109173	ENSRNOT00000 051363.2	Ido1	ENSRNOG00 000031189	indoleamine 2,3-dioxygenase 1 Source RGD Symbol Acc 619989
D09	UPFR1084134	ENSRNOT00000 009919.2	Ifnf	ENSRNOG00 000007468	interferon gamma Source RGD Symbol Acc 2866
D10	UPFR1050099	ENSRNOT00000 038780.6	Igf1	ENSRNOG00 000004517	insulin-like growth factor 1 Source RGD Symbol Acc 2868
D11	UPFR1113235	ENSRNOT00000 006246.5	Il10	ENSRNOG00 000004647	interleukin 10 Source RGD Symbol Acc 2886
D12	UPFR1065603	ENSRNOT00000 012831.3	Il12a	ENSRNOG00 000009468	interleukin 12A Source RGD Symbol Acc 620562
E01	UPFR1060283	ENSRNOT00000 005898.6	Il12b	ENSRNOG00 000004380	interleukin 12B Source RGD Symbol Acc 628704
E02	UPFR1038252	ENSRNOT00000 010121.2	Il13	ENSRNOG00 000007652	interleukin 13 Source RGD Symbol Acc 68949
E03	UPFR1102147	ENSRNOT00000 004590.6	Il15	ENSRNOG00 000003439	interleukin 15 Source RGD Symbol Acc 2887
E04	UPFR1062668	ENSRNOT00000 016664.4	Il17a	ENSRNOG00 000012467	interleukin 17A Source RGD Symbol Acc 2888
E05	UPFR1066959	ENSRNOT00000 080818.1	Il1a	ENSRNOG00 000004575	interleukin 1 alpha Source RGD Symbol Acc 2890
E06	UPFR1121351	ENSRNOT00000 006308.4	Il1b	ENSRNOG00 000004649	interleukin 1 beta Source RGD Symbol Acc 2891
E07	UPFR1025024	ENSRNOT00000 082146.1	Il1r1	ENSRNOG00 000014504	interleukin 1 receptor type 1 Source RGD Symbol Acc 2892
E08	UPFR1070791	ENSRNOT00000 023327.2	Il2	ENSRNOG00 000017348	interleukin 2 Source RGD Symbol Acc 620047
E09	UPFR1058955	ENSRNOT00000 009776.4	Il22	ENSRNOG00 000007365	interleukin 22 Source RGD Symbol Acc 1561292
E10	UPFR1075411	ENSRNOT00000 004363.3	Il23a	ENSRNOG00 000003254	interleukin 23 subunit alpha Source RGD Symbol Acc 620873
E11	UPFR1099283	ENSRNOT00000 010029.3	Il4	ENSRNOG00 000007624	interleukin 4 Source RGD Symbol Acc 2898
E12	UPFR1098910	ENSRNOT00000 013732.6	Il6	ENSRNOG00 000010278	interleukin 6 Source RGD Symbol Acc 2901
F01	UPFR1043289	ENSRNOT00000 010968.6	Irf1	ENSRNOG00 000008144	interferon regulatory factor 1 Source RGD Symbol Acc 2920
F02	UPFR1087511	ENSRNOT00000 085097.1	Kitlg	ENSRNOG00 000005386	KIT ligand Source RGD Symbol Acc 3086
F03	UPFR1083939	ENSRNOT00000 083211.1	Micb	ENSRNOG00 000057645	MHC class I polypeptide-related sequence B Source RGD Symbol Acc 1564508
F04	UPFR1126542	ENSRNOT00000 008608.4	LOC10369 4877	ENSRNOG00 000006589	macrophage migration inhibitory factor Source RGD Symbol Acc 621163
F05	UPFR1101439	ENSRNOT00000 006188.5	Myc	ENSRNOG00 000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
F06	UPFR1120879	ENSRNOT00000 018341.5	Myd88	ENSRNOG00 000013634	MYD88, innate immune signal transduction adaptor Source RGD Symbol Acc 735043
F07	UPFR1116688	ENSRNOT00000 036838.4	Nfkb1	ENSRNOG00 000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
F08	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
F09	UPFR1117289	ENSRNOT00000 074915.1	NEWGENE _1311658	ENSRNOG00 000049797	programmed cell death 1 Source RGD Symbol Acc 1311658
F10	UPFR1035449	ENSRNOT00000 003567.4	Ptgs2	ENSRNOG00 000002525	prostaglandin-endoperoxide synthase 2 Source RGD Symbol Acc 620349

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1033037	ENSRNOT00000081240.1	RT1-A1	ENSRNOG0000038999	RT1 class Ia, locus A1 Source RGD Symbol Acc 1595924
F12	UPFR1096439	ENSRNOT00000084770.1	RT1-N2	ENSRNOG0000029386	RT1 class Ib, locus N2 Source RGD Symbol Acc 1595850
G01	UPFR1100110	ENSRNOT00000067875.4	Spp1	ENSRNOG0000043451	secreted phosphoprotein 1 Source RGD Symbol Acc 3752
G02	UPFR1068760	ENSRNOT00000083514.1	Stat1	ENSRNOG0000014079	signal transducer and activator of transcription 4 Source RGD Symbol Acc 1305747
G03	UPFR1040072	ENSRNOT00000026760.4	Stat3	ENSRNOG0000019742	signal transducer and activator of transcription 3 Source RGD Symbol Acc 3772
G04	UPFR1103881	ENSRNOT00000028051.4	Tgfb1	ENSRNOG0000020652	transforming growth factor, beta 1 Source RGD Symbol Acc 69051
G05	UPFR1061984	ENSRNOT00000013025.4	Tlr2	ENSRNOG0000009822	toll-like receptor 2 Source RGD Symbol Acc 735138
G06	UPFR1036867	ENSRNOT00000087986.1	Tlr3	ENSRNOG0000021726	toll-like receptor 3 Source RGD Symbol Acc 735171
G07	UPFR1020675	ENSRNOT00000014020.3	Tlr4	ENSRNOG0000010522	toll-like receptor 4 Source RGD Symbol Acc 3870
G08	UPFR1122279	ENSRNOT00000005620.6	Tlr7	ENSRNOG0000004249	toll-like receptor 7 Source RGD Symbol Acc 1563357
G09	UPFR1098022	ENSRNOT00000079677.1	LOC103694380	ENSRNOG0000051516	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G10	UPFR1107113	ENSRNOT00000017758.5	Tnfsf10	ENSRNOG0000013269	TNF superfamily member 10 Source RGD Symbol Acc 628734
G11	UPFR1095007	ENSRNOT00000085115.1	Tp53	ENSRNOG0000010756	tumor protein p53 Source RGD Symbol Acc 3889
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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