

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

## Rat Inflammatory Cytokines & Receptors

Cat. no. 249950 SBRN-011ZR

For study focus gene expression analysis

### Shipping and storage

QuantiNova LNA PCR Focus Panels are shipped at ambient temperature. Immediately upon receipt, they should be stored 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 PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova SYBR® Green PCR Kit (Mastermix) for PCR.

### Panel layout (Rotor-Gene): QuantiNova LNA 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 PCR System 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	Aimp1	Bmp2	Ccl11	Ccl12	Ccl17	Ccl19	Ccl2	Ccl20	Ccl22	Ccl24	Ccl3	Ccl4
B	Ccl5	Ccl6	Ccl7	Ccl9	Ccr1	Ccr10	Ccr7	Ccr3	Ccr4	Ccr5	Ccr6	Ccr8
C	Cd40lg	Csf1	Csf2	Csf3	Cx3cl1	Cx3cr1	Cxcl1	Cxcl10	Cxcl11	Cxcl12	Cxcl2	Cxcl6
D	Cxcl9	Cxcr2	Cxcr3	Cxcr5	Foslg	Ifng	Il10ra	Il11	Il13	Il15	Il16	Il17a
E	Il17b	Il17f	Il1a	Il1b	Il1r1	Il1m	Il21	Il27	Il2rb	Il2rg	Il3	Il33
F	Il4	Il5	Il5ra	Il6r	Il6st	Il7	Cxcr1	Lta	LOC1036943 81	LOC1036948 77	Naip1	Osm
G	Pf4	C5	Spp1	LOC1036943 80	Tnfrsf11b	Tnfrsf10	LOC1036899 74	Tnfrsf13	Tnfrsf13b	Tnfrsf14	Tnfrsf4	Vegfa
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBR1099623	ENSRNOT00000015213.6	Aimp1	ENSRNOG0000011384	aminoacyl tRNA synthetase complex-interacting multifunctional protein 1 Source RGD Symbol Acc 620466
A02	SBR1127251	ENSRNOT00000028904.4	Bmp2	ENSRNOG00000021276	bone morphogenetic protein 2 Source RGD Symbol Acc 2211
A03	SBR1164698	ENSRNOT00000009756.5	Ccl11	ENSRNOG0000007335	C-C motif chemokine ligand 11 Source RGD Symbol Acc 3644
A04	SBR1129555	ENSRNOT00000031626.5	Ccl12	ENSRNOG0000029768	chemokine (C-C motif) ligand 12 Source RGD Symbol Acc 1309255
A05	SBR1197042	ENSRNOT00000021842.2	Ccl17	ENSRNOG0000016278	C-C motif chemokine ligand 17 Source RGD Symbol Acc 619924
A06	SBR1200945	ENSRNOT00000020982.5	Ccl19	ENSRNOG0000015668	C-C motif chemokine ligand 19 Source RGD Symbol Acc 1310336
A07	SBR1165601	ENSRNOT00000009448.3	Ccl2	ENSRNOG0000007159	C-C motif chemokine ligand 2 Source RGD Symbol Acc 3645
A08	SBR1163271	ENSRNOT00000021730.3	Ccl20	ENSRNOG0000015992	C-C motif chemokine ligand 20 Source RGD Symbol Acc 3646
A09	SBR1108415	ENSRNOT00000022167.3	Ccl22	ENSRNOG0000016535	C-C motif chemokine ligand 22 Source RGD Symbol Acc 619933
A10	SBR1128762	ENSRNOT00000045157.3	Ccl24	ENSRNOG0000031162	C-C motif chemokine ligand 24 Source RGD Symbol Acc 1310245
A11	SBR1146662	ENSRNOT00000015139.3	Ccl3	ENSRNOG0000011205	C-C motif chemokine ligand 3 Source RGD Symbol Acc 3647
A12	SBR1202700	ENSRNOT00000015199.3	Ccl4	ENSRNOG0000011406	C-C motif chemokine ligand 4 Source RGD Symbol Acc 620441
B01	SBR1094349	ENSRNOT00000014865.6	Ccl5	ENSRNOG0000010906	C-C motif chemokine ligand 5 Source RGD Symbol Acc 69069
B02	SBR1162782	ENSRNOT00000045867.3	Ccl6	ENSRNOG0000030021	chemokine (C-C motif) ligand 6 Source RGD Symbol Acc 1303200
B03	SBR1105598	ENSRNOT00000000256.4	Ccl7	ENSRNOG0000000239	C-C motif chemokine ligand 7 Source RGD Symbol Acc 1359152
B04	SBR1179516	ENSRNOT00000029184.5	Ccl9	ENSRNOG0000028548	chemokine (C-C motif) ligand 9 Source RGD Symbol Acc 1310563
B05	SBR1135029	ENSRNOT00000008772.4	Ccr1	ENSRNOG0000006715	C-C motif chemokine receptor 1 Source RGD Symbol Acc 708446
B06	SBR1103843	ENSRNOT00000027458.5	Ccr10	ENSRNOG0000020275	C-C motif chemokine receptor 10 Source RGD Symbol Acc 1310716
B07	SBR1211640	ENSRNOT00000014163.7	Ccr7	ENSRNOG0000010665	C-C motif chemokine receptor 7 Source RGD Symbol Acc 735151
B08	SBR1110610	ENSRNOT000000008809.4	Ccr3	ENSRNOG0000006736	C-C motif chemokine receptor 3 Source RGD Symbol Acc 620593
B09	SBR1113127	ENSRNOT00000013705.3	Ccr4	ENSRNOG0000010315	C-C motif chemokine receptor 4 Source RGD Symbol Acc 620594
B10	SBR1129600	ENSRNOT00000082774.1	Ccr5	ENSRNOG0000049115	C-C motif chemokine receptor 5 Source RGD Symbol Acc 620596
B11	SBR1172047	ENSRNOT00000017302.6	Ccr6	ENSRNOG0000012964	C-C motif chemokine receptor 6 Source RGD Symbol Acc 1308562
B12	SBR1138241	ENSRNOT00000029766.1	Ccr8	ENSRNOG0000026759	C-C motif chemokine receptor 8 Source RGD Symbol Acc 1304893
C01	SBR1110042	ENSRNOT00000001162.4	Cd40lg	ENSRNOG0000000871	CD40 ligand Source RGD Symbol Acc 708418
C02	SBR1099651	ENSRNOT00000025222.6	Csf1	ENSRNOG0000018659	colony stimulating factor 1 Source RGD Symbol Acc 621063
C03	SBR1136894	ENSRNOT00000032333.3	Csf2	ENSRNOG0000026805	colony stimulating factor 2 Source RGD Symbol Acc 621065
C04	SBR1124341	ENSRNOT000000111509.3	Csf3	ENSRNOG0000008525	colony stimulating factor 3 Source RGD Symbol Acc 2426
C05	SBR1147286	ENSRNOT00000022128.5	Cx3cl1	ENSRNOG0000016326	C-X3-C motif chemokine ligand 1 Source RGD Symbol Acc 620458
C06	SBR1106590	ENSRNOT00000025019.2	Cx3cr1	ENSRNOG0000018509	C-X3-C motif chemokine receptor 1 Source RGD Symbol Acc 620137
C07	SBR1198580	ENSRNOT00000003778.3	Cxcl1	ENSRNOG0000002802	C-X-C motif chemokine ligand 1 Source RGD Symbol Acc 619869
C08	SBR1153857	ENSRNOT00000003075.7	Cxcl10	ENSRNOG0000022256	C-X-C motif chemokine ligand 10 Source RGD Symbol Acc 620209
C09	SBR1210202	ENSRNOT00000031667.4	Cxcl11	ENSRNOG0000022298	C-X-C motif chemokine ligand 11 Source RGD Symbol Acc 727827
C10	SBR1209894	ENSRNOT00000066670.3	Cxcl12	ENSRNOG0000013589	C-X-C motif chemokine ligand 12 Source RGD Symbol Acc 3651
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1132150	003745.6	Cxcl2	000002792	C-X-C motif chemokine ligand 2 Source RGD Symbol Acc 70069
C12	SBR1137423	ENSRNOT00000 003823.3	Cxcl6	ENSRNOG00 000002843	C-X-C motif chemokine ligand 6 Source RGD Symbol Acc 708540
D01	SBR1174753	ENSRNOT00000 003082.7	Cxcl9	ENSRNOG00 000022242	C-X-C motif chemokine ligand 9 Source RGD Symbol Acc 628798
D02	SBR1118473	ENSRNOT00000 081711.1	Cxcr2	ENSRNOG00 000014269	C-X-C motif chemokine receptor 2 Source RGD Symbol Acc 2906
D03	SBR1150044	ENSRNOT00000 076210.1	Cxcr3	ENSRNOG00 000003305	C-X-C motif chemokine receptor 3 Source RGD Symbol Acc 621528
D04	SBR1117366	ENSRNOT00000 016580.3	Cxcr5	ENSRNOG00 000012430	C-X-C motif chemokine receptor 5 Source RGD Symbol Acc 62010
D05	SBR1097457	ENSRNOT00000 003998.2	Faslg	ENSRNOG00 000002978	Fas ligand Source RGD Symbol Acc 3880
D06	SBR1108917	ENSRNOT00000 009919.2	Ifng	ENSRNOG00 000007468	interferon gamma Source RGD Symbol Acc 2866
D07	SBR1193747	ENSRNOT00000 021926.4	Il10ra	ENSRNOG00 000016308	interleukin 10 receptor subunit alpha Source RGD Symbol Acc 620138
D08	SBR1192221	ENSRNOT00000 023489.5	Il11	ENSRNOG00 000017386	interleukin 11 Source RGD Symbol Acc 621475
D09	SBR1178777	ENSRNOT00000 010121.2	Il13	ENSRNOG00 000007652	interleukin 13 Source RGD Symbol Acc 68949
D10	SBR1188273	ENSRNOT00000 004590.6	Il15	ENSRNOG00 000003439	interleukin 15 Source RGD Symbol Acc 2887
D11	SBR1105763	ENSRNOT00000 016289.4	Il16	ENSRNOG00 000011680	interleukin 16 Source RGD Symbol Acc 1583872
D12	SBR1131301	ENSRNOT00000 016664.4	Il17a	ENSRNOG00 000012467	interleukin 17A Source RGD Symbol Acc 2888
E01	SBR1144269	ENSRNOT00000 026679.6	Il17b	ENSRNOG00 000019695	interleukin 17B Source RGD Symbol Acc 620614
E02	SBR1096678	ENSRNOT00000 016717.5	Il17f	ENSRNOG00 000012509	interleukin 17F Source RGD Symbol Acc 1311398
E03	SBR1106125	ENSRNOT00000 006113.8	Il1a	ENSRNOG00 000004575	interleukin 1 alpha Source RGD Symbol Acc 2890
E04	SBR1196387	ENSRNOT00000 006308.4	Il1b	ENSRNOG00 000004649	interleukin 1 beta Source RGD Symbol Acc 2891
E05	SBR1113457	ENSRNOT00000 019673.4	Il1r1	ENSRNOG00 000014504	interleukin 1 receptor type 1 Source RGD Symbol Acc 2892
E06	SBR1111330	ENSRNOT00000 007949.6	Il1rn	ENSRNOG00 000005871	interleukin 1 receptor antagonist Source RGD Symbol Acc 621159
E07	SBR1166751	ENSRNOT00000 023348.4	Il21	ENSRNOG00 000017376	interleukin 21 Source RGD Symbol Acc 1307384
E08	SBR1210167	ENSRNOT00000 025950.5	Il27	ENSRNOG00 000019170	interleukin 27 Source RGD Symbol Acc 1561420
E09	SBR1211385	ENSRNOT00000 075678.2	Il2rb	ENSRNOG00 000048636	interleukin 2 receptor subunit beta Source RGD Symbol Acc 2896
E10	SBR1104761	ENSRNOT00000 077024.1	Il2rg	ENSRNOG00 000003954	interleukin 2 receptor subunit gamma Source RGD Symbol Acc 621466
E11	SBR1198875	ENSRNOT00000 031762.1	Il3	ENSRNOG00 000026786	interleukin 3 Source RGD Symbol Acc 2897
E12	SBR1152021	ENSRNOT00000 022056.7	Il33	ENSRNOG00 000016456	interleukin 33 Source RGD Symbol Acc 1311155
F01	SBR1101847	ENSRNOT00000 010029.3	Il4	ENSRNOG00 000007624	interleukin 4 Source RGD Symbol Acc 2898
F02	SBR1179555	ENSRNOT00000 010729.4	Il5	ENSRNOG00 000008111	interleukin 5 Source RGD Symbol Acc 2900
F03	SBR1113791	ENSRNOT00000 008403.3	Il5ra	ENSRNOG00 000005954	interleukin 5 receptor subunit alpha Source RGD Symbol Acc 70938
F04	SBR1135762	ENSRNOT00000 028234.7	Il6r	ENSRNOG00 000020811	interleukin 6 receptor Source RGD Symbol Acc 2902
F05	SBR1177389	ENSRNOT00000 018877.7	Il6st	ENSRNOG00 000013963	interleukin 6 signal transducer Source RGD Symbol Acc 2903
F06	SBR1129975	ENSRNOT00000 016091.7	Il7	ENSRNOG00 000011973	interleukin 7 Source RGD Symbol Acc 2904
F07	SBR1128990	ENSRNOT00000 090868.1	Cxcr1	ENSRNOG00 000048239	C-X-C motif chemokine receptor 1 Source RGD Symbol Acc 2905
F08	SBR1181153	ENSRNOT00000 088936.1	Lta	ENSRNOG00 000000838	lymphotoxin alpha Source RGD Symbol Acc 3020
F09	SBR1203426	ENSRNOT00000 089411.1	LOC10369 4381	ENSRNOG00 000058566	lymphotoxin-beta Source RGD Symbol Acc 9083628
F10	SBR1136891	ENSRNOT00000 008608.4	LOC10369 4877	ENSRNOG00 000006589	macrophage migration inhibitory factor Source RGD Symbol Acc 621163

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1212040	ENSRNOT00000013043.6	Nampt	ENSRNOG0000009754	nicotinamide phosphoribosyltransferase Source RGD Symbol Acc 631365
F12	SBR1214264	ENSRNOT00000035591.3	Osm	ENSRNOG0000024390	oncostatin M Source RGD Symbol Acc 1585012
G01	SBR1204196	ENSRNOT00000033406.1	Pf4	ENSRNOG0000028015	platelet factor 4 Source RGD Symbol Acc 3305
G02	SBR1149597	ENSRNOT00000092736.1	C5	ENSRNOG0000018899	complement C5 Source RGD Symbol Acc 2237
G03	SBR1210860	ENSRNOT00000075989.1	Spp1	ENSRNOG0000043451	secreted phosphoprotein 1 Source RGD Symbol Acc 3752
G04	SBR1187845	ENSRNOT00000079677.1	LOC103694380	ENSRNOG0000055156	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G05	SBR1183920	ENSRNOT00000011344.5	Tnfrsf11b	ENSRNOG0000008336	TNF receptor superfamily member 11B Source RGD Symbol Acc 619802
G06	SBR1107258	ENSRNOT00000017758.5	Tnfsf10	ENSRNOG0000013269	TNF superfamily member 10 Source RGD Symbol Acc 628734
G07	SBR1170442	ENSRNOT00000049056.4	LOC103689974	ENSRNOG0000049547	TNF superfamily member 11 Source RGD Symbol Acc 620784
G08	SBR1180016	ENSRNOT00000090762.1	Tnfsf13	ENSRNOG0000014171	TNF superfamily member 13 Source RGD Symbol Acc 1305871
G09	SBR1132432	ENSRNOT00000089650.1	Tnfsf13b	ENSRNOG0000014464	TNF superfamily member 13b Source RGD Symbol Acc 1561519
G10	SBR1099702	ENSRNOT00000074247.1	Tnfsf14	ENSRNOG0000047730	TNF superfamily member 14 Source RGD Symbol Acc 1588572
G11	SBR1194073	ENSRNOT00000003969.5	Tnfsf4	ENSRNOG0000002968	TNF superfamily member 4 Source RGD Symbol Acc 619816
G12	SBR1108862	ENSRNOT00000044163.4	Vegfa	ENSRNOG0000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
H01	SBR1220567	ENSRNOT00000042459.4	Actb	ENSRNOG0000034254	actin, beta Source RGD Symbol Acc 628837
H02	SBR1220568	ENSRNOT00000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	SBR1225377	ENSRNOT00000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	SBR1122313	ENSRNOT00000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	SBR1220572	ENSRNOT00000018820.5	Rplp1	ENSRNOG0000013874	ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774
H06	SBR1218555	Sybr_RGDC	RGDC	Sybr_RGDC	Rat Genomic DNA Contamination
H07	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H08	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H09	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H10	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H11	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H12	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control



## Related products

Product	Contents	Cat. no.
QuantiNova LNA PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249940
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 SYBR Green RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 $\mu$ l QuantiNova SYBR Green 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	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water	208052

\*Larger kit sizes available.

The QuantiNova LNA 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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