

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

## Rat NFkB Signaling Targets

Cat. no. 249950 SBRN-225ZA

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 (96-well): QuantiNova LNA PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. 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
<b>A</b>	Adm	Agf	Akl1	Aldh3a2	Bcl2a1	Bcl2l1	Birc2	Birc3	C3	C4a	Ccl11	Ccl12
<b>B</b>	Ccl22	Ccl5	Ccnd1	Ccr5	Cd40	Cd74	Cd80	Cd83	Cdkn1a	Cfb	Csf1	Csf2
<b>C</b>	Csf2rb	Csf3	Cxcl1	Cxcl10	Cxcl3	Cxcl9	Egfr	Egr2	F3	F8	Fas	Faslg
<b>D</b>	Gadd45b	Icam1	Ifnb1	Ifng	Il12b	Il15	Il1a	Il1b	Il1r2	Il1rn	Il2	Il2ra
<b>E</b>	Il4	Il6	Ins2	Irf1	Lta	LOC1036943 81	Map2k6	Mif	Mmp9	Myc	Myd88	Ncoa3
<b>F</b>	Nfkb1	Nfkb2	Nfkbia	Nqo1	Nr4a2	Pdgfb	Plau	Ptgs2	Rel	Rela	Sele	Selp
<b>G</b>	Snap25	Sod2	Stat1	Stat3	Stat5b	LOC1036943 80	Tnfrsf1b	Tnfrsf10	Tp53	Traf2	Vcam1	Xiap
<b>H</b>	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	SBR1135593	ENSRNOT00000036718.1	Adm	ENSRNOG0000027030	adrenomedullin Source RGD Symbol Acc 2047
A02	SBR1195605	ENSRNOT00000024917.4	Agt	ENSRNOG0000018445	angiotensinogen Source RGD Symbol Acc 2069
A03	SBR1163078	ENSRNOT00000031164.3	Akt1	ENSRNOG0000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A04	SBR1209238	ENSRNOT00000066109.3	Aldh3a2	ENSRNOG0000002342	aldehyde dehydrogenase 3 family, member A2 Source RGD Symbol Acc 61866
A05	SBR1100092	ENSRNOT00000039850.3	Bcl2a1	ENSRNOG0000047606	BCL2-related protein A1 Source RGD Symbol Acc 620621
A06	SBR1205791	ENSRNOT00000010762.7	Bcl2l1	ENSRNOG0000007946	Bcl2-like 1 Source RGD Symbol Acc 2200
A07	SBR1099985	ENSRNOT00000014560.6	Birc2	ENSRNOG0000010602	baculoviral IAP repeat-containing 2 Source RGD Symbol Acc 620690
A08	SBR1181460	ENSRNOT00000090774.1	Birc3	ENSRNOG0000005731	baculoviral IAP repeat-containing 3 Source RGD Symbol Acc 621282
A09	SBR1177146	ENSRNOT00000073042.3	C3	ENSRNOG0000046834	complement C3 Source RGD Symbol Acc 2232
A10	SBR1182212	ENSRNOT00000072377.2	C4a	ENSRNOG0000047657	complement C4A Source RGD Symbol Acc 620005
A11	SBR1164698	ENSRNOT00000009756.5	Ccl11	ENSRNOG0000007335	C-C motif chemokine ligand 11 Source RGD Symbol Acc 3644
A12	SBR1129555	ENSRNOT00000031626.5	Ccl12	ENSRNOG0000029768	chemokine (C-C motif) ligand 12 Source RGD Symbol Acc 1309255
B01	SBR1108415	ENSRNOT00000022167.3	Ccl22	ENSRNOG0000016535	C-C motif chemokine ligand 22 Source RGD Symbol Acc 619933
B02	SBR1094349	ENSRNOT00000014865.6	Ccl5	ENSRNOG0000010906	C-C motif chemokine ligand 5 Source RGD Symbol Acc 69069
B03	SBR1211432	ENSRNOT00000028411.3	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
B04	SBR1129600	ENSRNOT00000082774.1	Ccr5	ENSRNOG0000049115	C-C motif chemokine receptor 5 Source RGD Symbol Acc 620596
B05	SBR1146998	ENSRNOT00000055148.4	Cd40	ENSRNOG0000018488	CD40 molecule Source RGD Symbol Acc 619830
B06	SBR1204485	ENSRNOT00000025344.5	Cd74	ENSRNOG0000018735	CD74 molecule Source RGD Symbol Acc 2313
B07	SBR1120788	ENSRNOT00000089625.1	Cd80	ENSRNOG0000001527	Cd80 molecule Source RGD Symbol Acc 2314
B08	SBR1208061	ENSRNOT00000024458.5	Cd83	ENSRNOG0000018092	CD83 molecule Source RGD Symbol Acc 1309677
B09	SBR1145142	ENSRNOT00000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B10	SBR1130181	ENSRNOT00000075928.2	Cfb	ENSRNOG0000000419	complement factor B Source RGD Symbol Acc 2204
B11	SBR1099651	ENSRNOT00000025222.6	Csf1	ENSRNOG0000018659	colony stimulating factor 1 Source RGD Symbol Acc 621063
B12	SBR1136894	ENSRNOT00000032333.3	Csf2	ENSRNOG0000026805	colony stimulating factor 2 Source RGD Symbol Acc 621065
C01	SBR1132845	ENSRNOT00000000203.5	Csf2rb	ENSRNOG0000000187	colony stimulating factor 2 receptor beta common subunit Source RGD Symbol Acc 620189
C02	SBR1124341	ENSRNOT00000011509.3	Csf3	ENSRNOG0000008525	colony stimulating factor 3 Source RGD Symbol Acc 2426
C03	SBR1198580	ENSRNOT00000003778.3	Cxcl1	ENSRNOG0000002802	C-X-C motif chemokine ligand 1 Source RGD Symbol Acc 619869
C04	SBR1153857	ENSRNOT00000003075.7	Cxcl10	ENSRNOG0000022256	C-X-C motif chemokine ligand 10 Source RGD Symbol Acc 620209
C05	SBR1116913	ENSRNOT00000034090.3	Cxcl3	ENSRNOG0000028043	chemokine (C-X-C motif) ligand 3 Source RGD Symbol Acc 621812
C06	SBR1174753	ENSRNOT00000003082.7	Cxcl9	ENSRNOG0000022242	C-X-C motif chemokine ligand 9 Source RGD Symbol Acc 628798
C07	SBR1196436	ENSRNOT00000006087.2	Egfr	ENSRNOG0000004332	epidermal growth factor receptor Source RGD Symbol Acc 2543
C08	SBR1213007	ENSRNOT00000000792.4	Egr2	ENSRNOG0000000640	early growth response 2 Source RGD Symbol Acc 621608
C09	SBR1148832	ENSRNOT00000015836.5	F3	ENSRNOG0000011800	coagulation factor III, tissue factor Source RGD Symbol Acc 2587
C10	SBR1104243	ENSRNOT00000045926.4	F8	ENSRNOG0000031197	coagulation factor VIII Source RGD Symbol Acc 727845
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1159525	025928.5	Fas	000019142	Fas cell surface death receptor Source RGD Symbol Acc 619831
C12	SBR1097457	ENSRNOT0000003998.2	Faslg	ENSRNOG0000002978	Fas ligand Source RGD Symbol Acc 3880
D01	SBR1101583	ENSRNOT00000026871.4	Gadd45b	ENSRNOG0000019822	growth arrest and DNA-damage-inducible, beta Source RGD Symbol Acc 1309080
D02	SBR1152534	ENSRNOT00000028066.5	Icam1	ENSRNOG00000020679	intercellular adhesion molecule 1 Source RGD Symbol Acc 2857
D03	SBR1104910	ENSRNOT00000008224.2	Ifnb1	ENSRNOG00000006268	interferon beta 1 Source RGD Symbol Acc 2865
D04	SBR1108917	ENSRNOT00000009919.2	Ifnb3	ENSRNOG0000007468	interferon gamma Source RGD Symbol Acc 2866
D05	SBR1133771	ENSRNOT00000005898.6	Il12b	ENSRNOG0000004380	interleukin 12B Source RGD Symbol Acc 628704
D06	SBR1188273	ENSRNOT00000004590.6	Il15	ENSRNOG0000003439	interleukin 15 Source RGD Symbol Acc 2887
D07	SBR1106125	ENSRNOT00000006113.8	Il1a	ENSRNOG0000004575	interleukin 1 alpha Source RGD Symbol Acc 2890
D08	SBR1196387	ENSRNOT00000006308.4	Il1b	ENSRNOG0000004649	interleukin 1 beta Source RGD Symbol Acc 2891
D09	SBR1130335	ENSRNOT00000019415.5	Il1r2	ENSRNOG0000014378	interleukin 1 receptor type 2 Source RGD Symbol Acc 621147
D10	SBR1111330	ENSRNOT00000007949.6	Il1rn	ENSRNOG0000005871	interleukin 1 receptor antagonist Source RGD Symbol Acc 621159
D11	SBR1102170	ENSRNOT00000023327.2	Il2	ENSRNOG0000017348	interleukin 2 Source RGD Symbol Acc 620047
D12	SBR1164904	ENSRNOT00000073144.2	Il2ra	ENSRNOG0000047647	interleukin 2 receptor subunit alpha Source RGD Symbol Acc 2895
E01	SBR1101847	ENSRNOT00000010029.3	Il4	ENSRNOG0000007624	interleukin 4 Source RGD Symbol Acc 2898
E02	SBR1156877	ENSRNOT00000013732.6	Il6	ENSRNOG0000010278	interleukin 6 Source RGD Symbol Acc 2901
E03	SBR1158339	ENSRNOT00000027656.3	Ins2	ENSRNOG0000020405	insulin 2 Source RGD Symbol Acc 2916
E04	SBR1170657	ENSRNOT00000010968.6	Irf1	ENSRNOG0000008144	interferon regulatory factor 1 Source RGD Symbol Acc 2920
E05	SBR1181153	ENSRNOT000000088936.1	Lta	ENSRNOG0000000838	lymphotoxin alpha Source RGD Symbol Acc 3020
E06	SBR1203426	ENSRNOT000000089411.1	LOC103694381	ENSRNOG0000005856	lymphotoxin-beta Source RGD Symbol Acc 9083628
E07	SBR1094365	ENSRNOT00000006217.6	Map2k6	ENSRNOG0000004437	mitogen-activated protein kinase kinase 6 Source RGD Symbol Acc 620666
E08	SBR1115783	ENSRNOT000000083127.1	Mif	ENSRNOG00000008658	melanocyte inducing transcription factor Source RGD Symbol Acc 3092
E09	SBR1206750	ENSRNOT00000023965.3	Mmp9	ENSRNOG0000017539	matrix metalloproteinase 9 Source RGD Symbol Acc 621320
E10	SBR1106364	ENSRNOT00000006188.5	Myc	ENSRNOG0000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
E11	SBR1185632	ENSRNOT00000018341.5	Myd88	ENSRNOG0000013634	MYD88, innate immune signal transduction adaptor Source RGD Symbol Acc 735043
E12	SBR1162814	ENSRNOT00000007768.7	Ncoa3	ENSRNOG0000005616	nuclear receptor coactivator 3 Source RGD Symbol Acc 620109
F01	SBR1111134	ENSRNOT000000036838.4	Nfkb1	ENSRNOG0000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
F02	SBR1164776	ENSRNOT00000026235.3	Nfkb2	ENSRNOG0000019311	nuclear factor kappa B subunit 2 Source RGD Symbol Acc 1307189
F03	SBR1120974	ENSRNOT00000009894.6	Nfkbia	ENSRNOG0000007390	NFKB inhibitor alpha Source RGD Symbol Acc 3171
F04	SBR1125692	ENSRNOT00000017174.5	Nqo1	ENSRNOG0000012772	NAD(P)H quinone dehydrogenase 1 Source RGD Symbol Acc 2503
F05	SBR1175072	ENSRNOT00000041394.3	Nr4a2	ENSRNOG0000005600	nuclear receptor subfamily 4, group A, member 2 Source RGD Symbol Acc 3202
F06	SBR1132695	ENSRNOT00000023196.5	Pdgfrb	ENSRNOG0000017197	platelet derived growth factor subunit B Source RGD Symbol Acc 3283
F07	SBR1186883	ENSRNOT00000014273.5	Plau	ENSRNOG0000010516	plasminogen activator, urokinase Source RGD Symbol Acc 3343
F08	SBR1122148	ENSRNOT00000003567.4	Ptgs2	ENSRNOG0000002525	prostaglandin-endoperoxide synthase 2 Source RGD Symbol Acc 620349
F09	SBR1170346	ENSRNOT000000081077.1	Rel	ENSRNOG0000054437	REL proto-oncogene, NF-kB subunit Source RGD Symbol Acc 1311231
F10	SBR1138204	ENSRNOT00000045233.3	Rela	ENSRNOG0000030888	RELA proto-oncogene, NF-kB subunit Source RGD Symbol Acc 727889

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1131931	ENSRNOT00000076757.1	Sele	ENSRNOG0000002723	selectin E Source RGD Symbol Acc 3654
F12	SBR1174453	ENSRNOT00000076879.2	Selp	ENSRNOG0000002794	selectin P Source RGD Symbol Acc 3656
G01	SBR1179849	ENSRNOT00000007998.7	Snap25	ENSRNOG0000006037	synaptosomal-associated protein 25 Source MGI Symbol Acc MGI 98331
G02	SBR1204773	ENSRNOT00000025794.4	Sod2	ENSRNOG0000019048	superoxide dismutase 2 Source RGD Symbol Acc 3732
G03	SBR1199428	ENSRNOT00000080522.1	Stat1	ENSRNOG0000014079	signal transducer and activator of transcription 4 Source RGD Symbol Acc 1305747
G04	SBR1138417	ENSRNOT00000026760.4	Stat3	ENSRNOG0000019742	signal transducer and activator of transcription 3 Source RGD Symbol Acc 3772
G05	SBR1101487	ENSRNOT00000081247.1	Stat5b	ENSRNOG0000019075	signal transducer and activator of transcription 5B Source RGD Symbol Acc 3774
G06	SBR1187845	ENSRNOT00000079677.1	LOC103694380	ENSRNOG0000055156	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G07	SBR1111098	ENSRNOT00000022478.4	Tnfrsf1b	ENSRNOG0000016575	TNF receptor superfamily member 1B Source RGD Symbol Acc 621238
G08	SBR1107258	ENSRNOT00000017758.5	Tnfsf10	ENSRNOG0000013269	TNF superfamily member 10 Source RGD Symbol Acc 628734
G09	SBR1172374	ENSRNOT00000046490.3	Tp53	ENSRNOG0000010756	tumor protein p53 Source RGD Symbol Acc 3889
G10	SBR1181541	ENSRNOT00000008253.6	Traf2	ENSRNOG0000006238	Tnf receptor-associated factor 2 Source RGD Symbol Acc 1310457
G11	SBR1189462	ENSRNOT00000077972.1	Vcam1	ENSRNOG0000014333	vascular cell adhesion molecule 1 Source RGD Symbol Acc 3952
G12	SBR1144925	ENSRNOT00000009336.3	Xiap	ENSRNOG0000006967	X-linked inhibitor of apoptosis Source RGD Symbol Acc 620692
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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