

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

## Rat Transcription Factors

Cat. no. 249950 SBRN-075ZR

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
<b>A</b>	Ar	Arnt	Aif1	Aif2	Aif3	Aif4	Cebpa	Cebpb	Cebpg	Cisrnp	Creb1	Crebbp
<b>B</b>	Cttnb1	Dr1	E2f1	E2f6	Egr1	Esr1	Ets1	Ets2	Fos	Foxa2	Foxg1	Gata1
<b>C</b>	Gata2	Gata3	Gtf2b	Gtf2f1	Hand1	Hand2	Hdac1	Hif1a	Hnf1a	Hnf4a	Elk1	Hsf1
<b>D</b>	Id1	Irf1	Jun	Junb	Jund	Kcrnb	Max	Mef2a	Mef2b	Mef2c	Myc	Myf5
<b>E</b>	Myod1	Nanos2	Nfat5	Nfatc2	Nfatc3	Nfatc4	Nrkb1	Nfyb	AABR0703175 6.1	Pax6	Pou2f1	Ppara
<b>F</b>	Pparg	Rb1	Rel	Rela	Nfatc1	Smad1	Smad4	Smad5	LOC1036915 56	Sp1	Sp3	Nanog
<b>G</b>	Stat2	Stat3	Stat1	Stat5a	Stat5b	Stat6	Tbp	Tcf7l2	Tfap2a	Tgfr1	Tp53	Yy1
<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	SBR1193668	ENSRNOT00000009129.7	Ar	ENSRNOG0000005639	androgen receptor Source RGD Symbol Acc 2147
A02	SBR1145957	ENSRNOT00000091681.1	Arnt	ENSRNOG00000031174	aryl hydrocarbon receptor nuclear translocator Source RGD Symbol Acc 2153
A03	SBR1105972	ENSRNOT00000087298.1	Atf1	ENSRNOG00000061088	activating transcription factor 1 Source RGD Symbol Acc 1307360
A04	SBR1207469	ENSRNOT00000002174.7	Atf2	ENSRNOG0000001597	activating transcription factor 2 Source RGD Symbol Acc 621862
A05	SBR1108284	ENSRNOT00000089841.1	Atf3	ENSRNOG00000003745	activating transcription factor 3 Source RGD Symbol Acc 2165
A06	SBR1186510	ENSRNOT00000065304.4	Atf4	ENSRNOG0000017801	activating transcription factor 4 Source RGD Symbol Acc 621863
A07	SBR1144323	ENSRNOT00000014517.5	Cebpa	ENSRNOG0000010918	CCAAT/enhancer binding protein alpha Source RGD Symbol Acc 2326
A08	SBR1114232	ENSRNOT00000083876.1	Cebpb	ENSRNOG00000057347	CCAAT/enhancer binding protein beta Source RGD Symbol Acc 2327
A09	SBR1124720	ENSRNOT00000028703.5	Cebpg	ENSRNOG00000021144	CCAAT/enhancer binding protein gamma Source RGD Symbol Acc 2330
A10	SBR1162596	ENSRNOT00000081565.1	Clasrp	ENSRNOG00000046000	CLK4-associated serine/arginine rich protein Source RGD Symbol Acc 1563538
A11	SBR1179341	ENSRNOT00000049654.4	Creb1	ENSRNOG0000013412	cAMP responsive element binding protein 1 Source RGD Symbol Acc 620218
A12	SBR1115515	ENSRNOT00000007079.5	Crebbp	ENSRNOG0000005330	CREB binding protein Source RGD Symbol Acc 2401
B01	SBR1143136	ENSRNOT00000079085.1	Ctnnb1	ENSRNOG00000054172	catenin beta 1 Source RGD Symbol Acc 70487
B02	SBR1132477	ENSRNOT00000074874.2	Dr1	ENSRNOG00000048308	protein Dr1-like Source RGD Symbol Acc 6499394
B03	SBR1191846	ENSRNOT00000022428.6	E2f1	ENSRNOG0000016708	N-terminal EF-hand calcium binding protein 3 Source RGD Symbol Acc 1310124
B04	SBR1188592	ENSRNOT00000060499.4	E2f6	ENSRNOG0000004449	E2F transcription factor 6 Source RGD Symbol Acc 631412
B05	SBR1216566	ENSRNOT00000026303.4	Egr1	ENSRNOG0000019422	early growth response 1 Source RGD Symbol Acc 2544
B06	SBR1147622	ENSRNOT00000081017.1	Esr1	ENSRNOG0000019358	estrogen receptor 1 Source RGD Symbol Acc 2581
B07	SBR1138162	ENSRNOT00000011925.4	Ets1	ENSRNOG0000008941	ETS proto-oncogene 1, transcription factor Source RGD Symbol Acc 2583
B08	SBR1209269	ENSRNOT00000002247.6	Ets2	ENSRNOG0000001647	ETS proto-oncogene 2, transcription factor Source RGD Symbol Acc 1584977
B09	SBR1110295	ENSRNOT00000010712.3	Fos	ENSRNOG0000008015	Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626
B10	SBR1102800	ENSRNOT00000017742.3	Foxa2	ENSRNOG0000013133	forkhead box A2 Source RGD Symbol Acc 2808
B11	SBR1113024	ENSRNOT00000075349.1	Foxg1	ENSRNOG0000047891	forkhead box G1 Source RGD Symbol Acc 2619
B12	SBR1096753	ENSRNOT00000075082.2	Gata1	ENSRNOG0000047663	erythroid transcription factor Source RGD Symbol Acc 11399827
C01	SBR1149219	ENSRNOT00000017240.2	Gata2	ENSRNOG0000012347	GATA binding protein 2 Source RGD Symbol Acc 2664
C02	SBR1158985	ENSRNOT00000026187.5	Gata3	ENSRNOG0000019336	GATA binding protein 3 Source RGD Symbol Acc 621250
C03	SBR1180989	ENSRNOT00000015032.5	Gtf2b	ENSRNOG0000011135	general transcription factor IIB Source RGD Symbol Acc 619735
C04	SBR1206781	ENSRNOT00000073683.2	Gtf2f1	ENSRNOG0000047134	general transcription factor IIF subunit 1 Source RGD Symbol Acc 1359646
C05	SBR1209988	ENSRNOT00000003486.5	Hand1	ENSRNOG0000002582	heart and neural crest derivatives expressed 1 Source RGD Symbol Acc 621206
C06	SBR1146493	ENSRNOT00000079552.1	Hand2	ENSRNOG0000060448	heart and neural crest derivatives expressed 2 Source NCBI gene Acc 64637
C07	SBR1151584	ENSRNOT00000012854.6	Hdac1	ENSRNOG0000009568	histone deacetylase 1 Source RGD Symbol Acc 1309799
C08	SBR1184753	ENSRNOT00000077935.1	Hif1a	ENSRNOG0000008292	hypoxia inducible factor 1 subunit alpha Source RGD Symbol Acc 61928
C09	SBR1159772	ENSRNOT00000001565.3	Hnf1a	ENSRNOG000001183	HNF1 homeobox A Source RGD Symbol Acc 3828
C10	SBR1193762	ENSRNOT00000089893.1	Hnf4a	ENSRNOG0000008895	hepatocyte nuclear factor 4, alpha Source RGD Symbol Acc 2810
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1203710	013522.5	Elk1	000010171	ELK1, ETS transcription factor Source RGD Symbol Acc 1598663
C12	SBR1218531	ENSRNOT00000050108.3	Hsf1	ENSRNOG0000021732	heat shock transcription factor 1 Source RGD Symbol Acc 620913
D01	SBR1135399	ENSRNOT00000029660.5	Id1	ENSRNOG00000021750	inhibitor of DNA binding 1, HLH protein Source RGD Symbol Acc 2858
D02	SBR1170657	ENSRNOT00000010968.6	Irf1	ENSRNOG0000008144	interferon regulatory factor 1 Source RGD Symbol Acc 2920
D03	SBR1133226	ENSRNOT00000011731.3	Jun	ENSRNOG00000026293	Jun proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2943
D04	SBR1195750	ENSRNOT00000067780.3	Junb	ENSRNOG0000042838	JunB proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2944
D05	SBR1161817	ENSRNOT00000026470.6	Jund	ENSRNOG0000019568	JunD proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2945
D06	SBR1149643	ENSRNOT00000087331.1	Kcnh8	ENSRNOG0000058626	potassium voltage-gated channel subfamily H member 8 Source RGD Symbol Acc 2549
D07	SBR1118916	ENSRNOT00000010954.5	Max	ENSRNOG0000008049	MYC associated factor X Source RGD Symbol Acc 621101
D08	SBR1204050	ENSRNOT00000070864.3	Mef2a	ENSRNOG0000047756	myocyte enhancer factor 2a Source RGD Symbol Acc 1359360
D09	SBR1191001	ENSRNOT00000027661.4	Mef2b	ENSRNOG0000020400	myocyte enhancer factor 2B Source RGD Symbol Acc 1561733
D10	SBR1120063	ENSRNOT00000076710.2	Mef2c	ENSRNOG0000033134	myocyte enhancer factor 2C Source RGD Symbol Acc 1563119
D11	SBR1106364	ENSRNOT00000006188.5	Myc	ENSRNOG0000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
D12	SBR1170076	ENSRNOT00000006453.5	Myf5	ENSRNOG0000004768	myogenic factor 5 Source RGD Symbol Acc 1308322
E01	SBR1143996	ENSRNOT00000015109.2	Myod1	ENSRNOG0000011306	myogenic differentiation 1 Source RGD Symbol Acc 631429
E02	SBR1187114	ENSRNOT00000057963.2	Nanos2	ENSRNOG0000038088	nanos C2HC-type zinc finger 2 Source RGD Symbol Acc 1562436
E03	SBR1141053	ENSRNOT00000017005.5	Nfat5	ENSRNOG0000011879	nuclear factor of activated T-cells 5 Source RGD Symbol Acc 1309142
E04	SBR1164050	ENSRNOT00000065615.1	Nfatc2	ENSRNOG0000012175	nuclear factor of activated T-cells 2 Source RGD Symbol Acc 1307690
E05	SBR1158204	ENSRNOT00000089783.1	Nfatc3	ENSRNOG0000054264	nuclear factor of activated T-cells 3 Source RGD Symbol Acc 1308692
E06	SBR1194678	ENSRNOT00000089584.1	Nfatc4	ENSRNOG0000020482	nuclear factor of activated T-cells 4 Source RGD Symbol Acc 1310749
E07	SBR1111134	ENSRNOT00000036838.4	Nfkb1	ENSRNOG0000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
E08	SBR1094032	ENSRNOT00000066143.2	Nfyb	ENSRNOG0000010309	nuclear transcription factor Y subunit beta Source RGD Symbol Acc 3172
E09	SBR1127733	ENSRNOT00000044287.4	AABR07031756.1	ENSRNOG0000014096	nuclear receptor subfamily 3, group C, member 1 Source NCBI gene Acc 24413
E10	SBR1184898	ENSRNOT00000006302.7	Pax6	ENSRNOG0000004410	paired box 6 Source RGD Symbol Acc 3258
E11	SBR1161036	ENSRNOT00000066848.1	Pou2af1	ENSRNOG0000011500	POU class 2 associating factor 1 Source RGD Symbol Acc 1594728
E12	SBR1163064	ENSRNOT00000078928.1	Ppara	ENSRNOG0000021463	peroxisome proliferator activated receptor alpha Source RGD Symbol Acc 3369
F01	SBR1131520	ENSRNOT00000082969.1	Pparg	ENSRNOG0000008839	peroxisome proliferator-activated receptor gamma Source RGD Symbol Acc 3371
F02	SBR1123205	ENSRNOT00000021752.5	Rb1	ENSRNOG0000016029	RB transcriptional corepressor 1 Source RGD Symbol Acc 3540
F03	SBR1170346	ENSRNOT00000081077.1	Rel	ENSRNOG0000054437	REL proto-oncogene, NF-kB subunit Source RGD Symbol Acc 1311231
F04	SBR1138204	ENSRNOT00000045233.3	Rela	ENSRNOG0000030888	RELA proto-oncogene, NF-kB subunit Source RGD Symbol Acc 727889
F05	SBR1175053	ENSRNOT00000058382.4	Nfatc1	ENSRNOG0000017146	nuclear factor of activated T-cells 1 Source RGD Symbol Acc 2319357
F06	SBR1104338	ENSRNOT00000025079.6	Smad1	ENSRNOG0000018483	SMAD family member 1 Source RGD Symbol Acc 3030
F07	SBR1183988	ENSRNOT00000090198.1	Smad4	ENSRNOG0000051965	SMAD family member 4 Source RGD Symbol Acc 3033
F08	SBR1104889	ENSRNOT00000016704.4	Smad5	ENSRNOG0000022870	SMAD family member 5 Source RGD Symbol Acc 620158
F09	SBR1147834	ENSRNOT00000079544.1	LOC103691556	ENSRNOG0000058416	SMAD family member 9 Source RGD Symbol Acc 71004
F10	SBR1200819	ENSRNOT00000019403.6	Sp1	ENSRNOG0000014084	Sp1 transcription factor Source RGD Symbol Acc 3738

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1214074	ENSRNOT00000078752.1	Sp3	ENSRNOG0000060479	Sp3 transcription factor Source RGD Symbol Acc 1583765
F12	SBR1194871	ENSRNOT00000060937.3	Nanog	ENSRNOG0000008368	Nanog homeobox Source RGD Symbol Acc 1303178
G01	SBR1094837	ENSRNOT00000088201.1	Stat2	ENSRNOG0000031081	signal transducer and activator of transcription 2 Source RGD Symbol Acc 1311649
G02	SBR1138417	ENSRNOT00000026760.4	Stat3	ENSRNOG0000019742	signal transducer and activator of transcription 3 Source RGD Symbol Acc 3772
G03	SBR1199428	ENSRNOT00000080522.1	Stat1	ENSRNOG0000014079	signal transducer and activator of transcription 4 Source RGD Symbol Acc 1305747
G04	SBR1147063	ENSRNOT00000026662.3	Stat5a	ENSRNOG0000019496	signal transducer and activator of transcription 5A Source RGD Symbol Acc 3773
G05	SBR1101487	ENSRNOT00000081247.1	Stat5b	ENSRNOG0000019075	signal transducer and activator of transcription 5B Source RGD Symbol Acc 3774
G06	SBR1207811	ENSRNOT00000085350.1	Stat6	ENSRNOG0000025023	signal transducer and activator of transcription 6 Source RGD Symbol Acc 1309063
G07	SBR1220573	ENSRNOT00000002038.4	Tbp	ENSRNOG0000001489	TATA box binding protein Source RGD Symbol Acc 67398
G08	SBR1184563	ENSRNOT00000019681.6	Tcf7l2	ENSRNOG0000049232	transcription factor 7 like 2 Source RGD Symbol Acc 1583621
G09	SBR1177194	ENSRNOT00000041960.5	Tfap2a	ENSRNOG0000015522	transcription factor AP-2 alpha Source RGD Symbol Acc 1310267
G10	SBR1164047	ENSRNOT00000021534.6	Tgif1	ENSRNOG0000015906	TGFB-induced factor homeobox 1 Source RGD Symbol Acc 1310517
G11	SBR1172374	ENSRNOT00000046490.3	Tp53	ENSRNOG0000010756	tumor protein p53 Source RGD Symbol Acc 3889
G12	SBR1180925	ENSRNOT00000005743.3	Yy1	ENSRNOG0000004339	YY1 transcription factor Source RGD Symbol Acc 3982
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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at [www.qiagen.com](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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