

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

Rat Nitric Oxide Signaling Pathway

Cat. no. 249950 SBRN-062ZR

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 for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Aass	Als2	Apoe	Bax	Bcl2l1	Calm1	LOC1009123 80	Cat	Cav1	Ccnd1	Ccng1	Ccs
B	LOC1009117 30	Cdkn1a	Cicf1	Ctcb	Cyba	Ddah1	Ddah2	Dlg4	Dynll1	Egr1	Epx	Ercc2
C	Fas	Fos	Gab1	Gadd45a	Gpx1	Gpx2	Gpx3	Gpx4	Gpx5	Gpx6	Gpx7	Grin1
D	AABR0703521 8.1	Hpn	Idh1	Irgm	Mdm2	Med4	Mpo	Myc	AABR0702140 2.1	Nedl1	Nos1	LOC1003610 87
E	Nos2	Nos3	Nox1	Nox4	Noxa1	Noxo1	Nqo1	Nudt15	Pea15	Ppp1r15b	Ppp3ca	Prdx1
F	Prdx2	Prdx6	Prkaca	Prnp	Prpf4	Psmb5	Rb1	Recql4	Rprm	Rras	Rrp1	Scd2
G	Scd	Scd4	Sfn	Sod1	Sod2	Sod3	Tp53	Tpo	Txnip	Txnrd2	Ubc	Ucp3
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	SBR1104320	ENSRNOT00000060530.4	Aass	ENSRNOG0000039494	aminoadipate-semialdehyde synthase Source RGD Symbol Acc 1310811
A02	SBR1165832	ENSRNOT00000088729.1	Als2	ENSRNOG0000023280	ALS2, alsin Rho guanine nucleotide exchange factor Source RGD Symbol Acc 1310372
A03	SBR1123572	ENSRNOT00000080453.1	Apoe	ENSRNOG0000018454	apolipoprotein E Source RGD Symbol Acc 2138
A04	SBR1154566	ENSRNOT00000028328.5	Bax	ENSRNOG0000020876	BCL2 associated X, apoptosis regulator Source RGD Symbol Acc 2192
A05	SBR1205791	ENSRNOT00000010762.7	Bcl2l1	ENSRNOG0000007946	Bcl2-like 1 Source RGD Symbol Acc 2200
A06	SBR1172458	ENSRNOT00000064679.2	Calm1	ENSRNOG0000004060	calmodulin 2 Source RGD Symbol Acc 2258
A07	SBR1184554	ENSRNOT00000072756.1	LOC100912380	ENSRNOG0000045747	calpain small subunit 1-like Source RGD Symbol Acc 6487412
A08	SBR1123529	ENSRNOT00000011230.5	Cat	ENSRNOG0000008364	catalase Source RGD Symbol Acc 2279
A09	SBR1108638	ENSRNOT00000078250.1	Cav1	ENSRNOG0000056836	caveolin 1 Source RGD Symbol Acc 2280
A10	SBR1211432	ENSRNOT00000028411.3	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
A11	SBR1159654	ENSRNOT00000065633.3	Ccng1	ENSRNOG0000003256	cyclin G1 Source RGD Symbol Acc 2295
A12	SBR1140988	ENSRNOT00000073983.2	Ccs	ENSRNOG0000047816	copper chaperone for superoxide dismutase Source RGD Symbol Acc 620403
B01	SBR1151006	ENSRNOT00000072434.2	LOC10091730	ENSRNOG0000046094	CD151 molecule (Raph blood group) Source RGD Symbol Acc 621290
B02	SBR1145142	ENSRNOT00000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B03	SBR1173941	ENSRNOT00000025342.7	Clcf1	ENSRNOG0000018752	cardiotrophin-like cytokine factor 1 Source RGD Symbol Acc 1303171
B04	SBR1215406	ENSRNOT00000014177.5	Ctsb	ENSRNOG0000010331	cathepsin B Source RGD Symbol Acc 621509
B05	SBR1159284	ENSRNOT00000017564.6	Cyba	ENSRNOG0000013014	cytochrome b-245 alpha chain Source RGD Symbol Acc 620573
B06	SBR1186521	ENSRNOT00000045016.4	Ddah1	ENSRNOG0000014613	dimethylarginine dimethylaminohydrolase 1 Source RGD Symbol Acc 70968
B07	SBR1140568	ENSRNOT00000001118.5	Ddah2	ENSRNOG0000000842	dimethylarginine dimethylaminohydrolase 2 Source RGD Symbol Acc 1302955
B08	SBR1114299	ENSRNOT00000068493.2	Dlg4	ENSRNOG0000018526	discs large MAGUK scaffold protein 4 Source RGD Symbol Acc 68424
B09	SBR1179168	ENSRNOT00000014910.5	Dynll1	ENSRNOG0000011222	dynein light chain LC8-type 1 Source RGD Symbol Acc 619866
B10	SBR1216566	ENSRNOT00000026303.4	Egr1	ENSRNOG0000019422	early growth response 1 Source RGD Symbol Acc 2544
B11	SBR1104594	ENSRNOT00000011735.4	Epx	ENSRNOG0000008707	eosinophil peroxidase Source RGD Symbol Acc 1311882
B12	SBR1168699	ENSRNOT00000024246.7	Ercc2	ENSRNOG0000017753	ERCC excision repair 2, TFIIH core complex helicase subunit Source RGD Symbol Acc 1309109
C01	SBR1159525	ENSRNOT00000025928.5	Fas	ENSRNOG0000019142	Fas cell surface death receptor Source RGD Symbol Acc 619831
C02	SBR1110295	ENSRNOT00000010712.3	Fos	ENSRNOG0000008015	Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626
C03	SBR1117324	ENSRNOT00000083219.1	Gab1	ENSRNOG0000017879	GRB2-associated binding protein 1 Source RGD Symbol Acc 1311085
C04	SBR1179414	ENSRNOT00000007698.6	Gadd45a	ENSRNOG0000005615	growth arrest and DNA-damage-inducible, alpha Source RGD Symbol Acc 2654
C05	SBR1185178	ENSRNOT00000073247.2	Gpx1	ENSRNOG0000048812	glutathione peroxidase 1 Source RGD Symbol Acc 2729
C06	SBR1133643	ENSRNOT00000080270.1	Gpx2	ENSRNOG0000055672	glutathione peroxidase 2 Source RGD Symbol Acc 727780
C07	SBR1166361	ENSRNOT00000079830.1	Gpx3	ENSRNOG0000052564	glutathione peroxidase 3 Source RGD Symbol Acc 69224
C08	SBR1097775	ENSRNOT00000093632.1	Gpx4	ENSRNOG0000013604	glutathione peroxidase 4 Source RGD Symbol Acc 69226
C09	SBR1158462	ENSRNOT00000084180.1	Gpx5	ENSRNOG0000057180	glutathione peroxidase 5 Source RGD Symbol Acc 69227
C10	SBR1187444	ENSRNOT00000082782.1	Gpx6	ENSRNOG0000060749	glutathione peroxidase 6 Source RGD Symbol Acc 628789
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1129057	013913.6	Gpx7	000009751	glutathione peroxidase 7 Source RGD Symbol Acc 1306999
C12	SBR1215394	ENSRNOT00000044246.4	Grin1	ENSRNOG0000011726	glutamate ionotropic receptor NMDA type subunit 1 Source RGD Symbol Acc 2736
D01	SBR1122955	ENSRNOT00000047163.4	AABR07035218.1	ENSRNOG0000029813	
D02	SBR1134428	ENSRNOT00000077462.1	Hpn	ENSRNOG0000021097	hepsin Source RGD Symbol Acc 61982
D03	SBR1195467	ENSRNOT00000020322.5	ldh1	ENSRNOG0000015020	isocitrate dehydrogenase (NADP(+)) 1, cytosolic Source RGD Symbol Acc 2862
D04	SBR1173162	ENSRNOT00000045545.3	Irgm	ENSRNOG0000031138	immunity-related GTPase M Source RGD Symbol Acc 1305163
D05	SBR1110929	ENSRNOT00000066767.2	Mdm2	ENSRNOG0000006304	MDM2 proto-oncogene Source RGD Symbol Acc 1305332
D06	SBR1145559	ENSRNOT00000023195.5	Med4	ENSRNOG0000017170	mediator complex subunit 4 Source RGD Symbol Acc 1306671
D07	SBR1165540	ENSRNOT00000081951.1	Mpo	ENSRNOG0000008310	myeloperoxidase Source RGD Symbol Acc 1592081
D08	SBR1106364	ENSRNOT00000006188.5	Myc	ENSRNOG0000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
D09	SBR1166610	ENSRNOT00000066331.2	AABR07021402.1	ENSRNOG0000028016	neutrophil cytosolic factor 2 Source NCBI gene Acc 364018
D10	SBR1094254	ENSRNOT00000005463.6	Nedd1	ENSRNOG0000004011	neural precursor cell expressed, developmentally down-regulated 1 Source RGD Symbol Acc 1307750
D11	SBR1157040	ENSRNOT00000066810.3	Nos1	ENSRNOG0000001130	nitric oxide synthase 1 Source RGD Symbol Acc 3184
D12	SBR1188118	ENSRNOT00000032218.5	LOC100361087	ENSRNOG0000042929	hypothetical LOC100361087 Source RGD Symbol Acc 2320873
E01	SBR1197401	ENSRNOT00000073138.2	Nos2	ENSRNOG0000057443	similar to Nitric oxide synthase, inducible (NOS type II) (Inducible NO synthase) (Inducible NOS) (iNOS) Source RGD Symbol Acc 1598227
E02	SBR1203756	ENSRNOT00000013058.4	Nos3	ENSRNOG0000009348	nitric oxide synthase 3 Source RGD Symbol Acc 3186
E03	SBR1215490	ENSRNOT00000075325.1	Nox1	ENSRNOG0000048706	NADPH oxidase 1 Source RGD Symbol Acc 620598
E04	SBR1109066	ENSRNOT00000018990.6	Nox4	ENSRNOG0000013925	NADPH oxidase 4 Source RGD Symbol Acc 620600
E05	SBR1179694	ENSRNOT00000012375.5	Noxa1	ENSRNOG0000009286	NADPH oxidase activator 1 Source RGD Symbol Acc 1306687
E06	SBR1103282	ENSRNOT00000029652.3	Noxo1	ENSRNOG0000025117	NADPH oxidase organizer 1 Source RGD Symbol Acc 1307802
E07	SBR1125692	ENSRNOT00000017174.5	Nqo1	ENSRNOG0000012772	NAD(P)H quinone dehydrogenase 1 Source RGD Symbol Acc 2503
E08	SBR1164230	ENSRNOT00000077733.1	Nudt15	ENSRNOG0000025239	nudix hydrolase 15 Source RGD Symbol Acc 1308292
E09	SBR1214621	ENSRNOT00000070812.1	Pea15	ENSRNOG0000046996	proliferation and apoptosis adaptor protein 15 Source RGD Symbol Acc 1306055
E10	SBR1136626	ENSRNOT00000037039.6	Ppp1r15b	ENSRNOG0000028493	protein phosphatase 1, regulatory subunit 15B Source RGD Symbol Acc 1307944
E11	SBR1162958	ENSRNOT00000047975.5	Ppp3ca	ENSRNOG0000009882	protein phosphatase 3 catalytic subunit alpha Source RGD Symbol Acc 3382
E12	SBR1147176	ENSRNOT00000023132.5	Prdx1	ENSRNOG0000017194	peroxiredoxin 1 Source RGD Symbol Acc 620039
F01	SBR1150356	ENSRNOT00000004799.5	Prdx2	ENSRNOG0000003520	peroxiredoxin 2 Source RGD Symbol Acc 3838
F02	SBR1108747	ENSRNOT00000034583.6	Prdx6	ENSRNOG0000002896	peroxiredoxin 6 Source RGD Symbol Acc 71005
F03	SBR1139916	ENSRNOT00000041717.4	Prkaca	ENSRNOG0000005257	protein kinase cAMP-activated catalytic subunit alpha Source RGD Symbol Acc 3389
F04	SBR1183130	ENSRNOT00000028881.2	Pmp	ENSRNOG0000021259	prion protein Source RGD Symbol Acc 3410
F05	SBR1183671	ENSRNOT00000019910.5	Prpf4	ENSRNOG0000014777	pre-mRNA processing factor 4 Source RGD Symbol Acc 1311303
F06	SBR1150329	ENSRNOT00000018005.7	Psmb5	ENSRNOG0000013386	proteasome subunit beta 5 Source RGD Symbol Acc 61879
F07	SBR1123205	ENSRNOT00000021752.5	Rb1	ENSRNOG0000016029	RB transcriptional corepressor 1 Source RGD Symbol Acc 3540
F08	SBR1158013	ENSRNOT00000045135.4	Recq14	ENSRNOG0000032446	RecQ like helicase 4 Source RGD Symbol Acc 1307732
F09	SBR1143672	ENSRNOT00000006784.3	Rprm	ENSRNOG0000005109	reprimo, TP53 dependent G2 arrest mediator homolog Source RGD Symbol Acc 1595512
F10	SBR1175859	ENSRNOT00000027809.7	Rras	ENSRNOG0000037247	RAS related Source RGD Symbol Acc 1311443

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1191257	ENSRNOT0000001597.7	Rrp1	ENSRNOG0000001203	ribosomal RNA processing 1 Source RGD Symbol Acc 1307286
F12	SBR1116901	ENSRNOT00000075397.1	Scd2	ENSRNOG0000046005	stearoyl-Coenzyme A desaturase 2 Source RGD Symbol Acc 621177
G01	SBR1116635	ENSRNOT00000018447.5	Scd	ENSRNOG0000013552	stearoyl-CoA desaturase Source RGD Symbol Acc 621176
G02	SBR1198104	ENSRNOT00000017834.6	Scd4	ENSRNOG0000032554	stearoyl-coenzyme A desaturase 4 Source RGD Symbol Acc 1563648
G03	SBR1202515	ENSRNOT00000043959.4	Sfn	ENSRNOG0000033153	stratifin Source RGD Symbol Acc 1304729
G04	SBR1136942	ENSRNOT00000002885.6	Sod1	ENSRNOG0000002115	superoxide dismutase 1 Source RGD Symbol Acc 3731
G05	SBR1204773	ENSRNOT00000025794.4	Sod2	ENSRNOG0000019048	superoxide dismutase 2 Source RGD Symbol Acc 3732
G06	SBR1093914	ENSRNOT00000005155.3	Sod3	ENSRNOG0000003869	superoxide dismutase 3 Source RGD Symbol Acc 3733
G07	SBR1172374	ENSRNOT00000046490.3	Tp53	ENSRNOG0000010756	tumor protein p53 Source RGD Symbol Acc 3889
G08	SBR1161885	ENSRNOT00000006526.3	Tpo	ENSRNOG0000004646	thyroid peroxidase Source RGD Symbol Acc 3900
G09	SBR1211460	ENSRNOT00000028793.6	Txnip	ENSRNOG0000021201	thioredoxin interacting protein Source RGD Symbol Acc 620886
G10	SBR1095078	ENSRNOT00000081972.1	Txnd2	ENSRNOG0000001890	thioredoxin reductase 2 Source RGD Symbol Acc 61960
G11	SBR1137667	ENSRNOT00000085692.1	Ubc	ENSRNOG0000057823	ubiquitin C Source RGD Symbol Acc 621244
G12	SBR1125659	ENSRNOT00000024005.5	Ucp3	ENSRNOG0000017716	uncoupling protein 3 Source RGD Symbol Acc 3933
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 μ l reactions: 20 μ l 8x gDNA Removal Mix, 10 μ l Reverse Transcription Enzyme, 40 μ l Reverse Transcription Mix (containing RT primers), 20 μ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 μ l QuantiNova SYBR Green RT Mix, 20 μ l Internal Control RNA, 500 μ l Yellow Template Dilution Buffer, 250 μ l ROX Reference Dye, 1.9 μ l RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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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