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

Mouse Oxidative Stress and Antioxidant Defense

Cat. no. 249950 SBMM-065ZR

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	Alb	Als2	Aox1	Apc	Apoe	Atr	Cat	Ccl5	Ccs	Ctsb	Cyba	Cygb
B	Dnm2	Duox1	Ehd2	Epx	Ercc2	Ercc6	Fancc	Fmo2	Fth1	Gclc	Gclm	Gpx1
C	Gpx2	Gpx3	Gpx4	Gpx5	Gpx6	Gpx7	Gsr	Gss	Gstk1	Gstp1	Hmox1	Hspa1a
D	Idh1	Ift172	Il19	Il22	Krt1	Lpo	Mb	Mpo	Ncf1	Ncf2	Ngb	Nos2
E	Nox1	Nox4	Noxa1	Noxo1	Nqo1	Park7	Prdx1	Prdx2	Prdx3	Prdx4	Prdx5	Prdx6
F	Prnp	Psmb5	Ptgs1	Ptgs2	Rag2	Recql4	Scd1	Serpinb1b	Slc38a1	Sod1	Sod2	Sod3
G	Sqstm1	Srxn1	Tpo	Txn1	Txnip	Txnrd1	Txnrd2	Txnrd3	Ucp2	Ucp3	Vim	Xpa
H	Actb	B2m	Gapdh	Gusb	Hsp90ab1	MGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBM0873914	ENSMUST00000201356.1	Alb	ENSMUSG00000029368	albumin Source MGI Symbol Acc MGI 87991
A02	SBM1045207	ENSMUST00000159166.7	Als2	ENSMUSG00000026024	alsin Rho guanine nucleotide exchange factor Source MGI Symbol Acc MGI 1921268
A03	SBM0865954	ENSMUST00000160168.1	Aox1	ENSMUSG00000063558	aldehyde oxidase 1 Source MGI Symbol Acc MGI 88035
A04	SBM0782035	ENSMUST00000079362.12	Apc	ENSMUSG00000005871	APC, WNT signaling pathway regulator Source MGI Symbol Acc MGI 88039
A05	SBM0912771	ENSMUST00000173739.7	Apoe	ENSMUSG00000002985	apolipoprotein E Source MGI Symbol Acc MGI 88057
A06	SBM0707457	ENSMUST00000189602.6	Atr	ENSMUSG00000032409	ataxia telangiectasia and Rad3 related Source MGI Symbol Acc MGI 108028
A07	SBM0711514	ENSMUST00000111168.3	Cat	ENSMUSG00000027187	catalase Source MGI Symbol Acc MGI 88271
A08	SBM0703029	ENSMUST00000125015.1	Ccl5	ENSMUSG00000035042	chemokine (C-C motif) ligand 5 Source MGI Symbol Acc MGI 98262
A09	SBM0733239	ENSMUST00000037246.6	Ccs	ENSMUSG00000034108	copper chaperone for superoxide dismutase Source MGI Symbol Acc MGI 1333783
A10	SBM0677916	ENSMUST00000225540.1	Ctsb	ENSMUSG00000021939	cathepsin B Source MGI Symbol Acc MGI 88561
A11	SBM0717267	ENSMUST00000212600.1	Cyba	ENSMUSG00000006519	cytochrome b-245, alpha polypeptide Source MGI Symbol Acc MGI 1316658
A12	SBM0964554	ENSMUST00000021166.5	Cygb	ENSMUSG00000020810	cytoglobin Source MGI Symbol Acc MGI 2149481
B01	SBM0925027	ENSMUST00000072362.13	Dnm2	ENSMUSG00000033335	dynamin 2 Source MGI Symbol Acc MGI 109547
B02	SBM1068307	ENSMUST00000099461.3	Duox1	ENSMUSG00000033268	dual oxidase 1 Source MGI Symbol Acc MGI 2139422
B03	SBM0786782	ENSMUST00000144956.1	Ehd2	ENSMUSG00000074364	EH-domain containing 2 Source MGI Symbol Acc MGI 2154274
B04	SBM1063593	ENSMUST00000125590.1	Epx	ENSMUSG00000052234	eosinophil peroxidase Source MGI Symbol Acc MGI 107569
B05	SBM0850014	ENSMUST00000062831.15	Ercc2	ENSMUSG00000030400	excision repair cross-complementing rodent repair deficiency, complementation group 2 Source MGI Symbol Acc MGI 95413
B06	SBM0954098	ENSMUST00000066807.7	Ercc6	ENSMUSG00000054051	excision repair cross-complementing rodent repair deficiency, complementation group 6 Source MGI Symbol Acc MGI 1100494
B07	SBM1093074	ENSMUST00000160735.7	Fancc	ENSMUSG00000021461	Fanconi anemia, complementation group C Source MGI Symbol Acc MGI 95480
B08	SBM0841573	ENSMUST00000111510.7	Fmo2	ENSMUSG00000040170	flavin containing monooxygenase 2 Source MGI Symbol Acc MGI 1916776
B09	SBM0754118	ENSMUST00000235196.1	Fth1	ENSMUSG00000024661	ferritin heavy polypeptide 1 Source MGI Symbol Acc MGI 95588
B10	SBM1048397	ENSMUST00000034905.8	Gclc	ENSMUSG00000032350	glutamate-cysteine ligase, catalytic subunit Source MGI Symbol Acc MGI 104990
B11	SBM0944392	ENSMUST00000029769.13	Gclm	ENSMUSG00000028124	glutamate-cysteine ligase, modifier subunit Source MGI Symbol Acc MGI 104995
B12	SBM0858533	ENSMUST00000082429.6	Gpx1	ENSMUSG00000063856	glutathione peroxidase 1 Source MGI Symbol Acc MGI 104887
C01	SBM0899268	ENSMUST00000082431.3	Gpx2	ENSMUSG00000042808	glutathione peroxidase 2 Source MGI Symbol Acc MGI 106609
C02	SBM0906281	ENSMUST00000149324.1	Gpx3	ENSMUSG00000018339	glutathione peroxidase 3 Source MGI Symbol Acc MGI 105102
C03	SBM0842398	ENSMUST00000136081.1	Gpx4	ENSMUSG00000075706	glutathione peroxidase 4 Source MGI Symbol Acc MGI 104767
C04	SBM0989192	ENSMUST00000110491.8	Gpx5	ENSMUSG00000004344	glutathione peroxidase 5 Source MGI Symbol Acc MGI 104886
C05	SBM0884498	ENSMUST00000004453.8	Gpx6	ENSMUSG00000004341	glutathione peroxidase 6 Source MGI Symbol Acc MGI 1922762
C06	SBM1021994	ENSMUST00000030332.6	Gpx7	ENSMUSG00000028597	glutathione peroxidase 7 Source MGI Symbol Acc MGI 1914555
C07	SBM0942303	ENSMUST00000033992.8	Gsr	ENSMUSG00000031584	glutathione reductase Source MGI Symbol Acc MGI 95804
C08	SBM0918101	ENSMUST00000155347.1	Gss	ENSMUSG00000027610	glutathione synthetase Source MGI Symbol Acc MGI 95852
C09	SBM0975188	ENSMUST00000031897.7	Gstk1	ENSMUSG00000029864	glutathione S-transferase kappa 1 Source MGI Symbol Acc MGI 1923513
C10	SBM1021264	ENSMUST00000237239.1	Gstp1	ENSMUSG00000060803	glutathione S-transferase, pi 1 Source MGI Symbol Acc MGI 95865
		ENSMUST00000		ENSMUSG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBM0936413	005548.7	Hmox1	000005413	heme oxygenase 1 Source MGI Symbol Acc MGI 96163
C12	SBM0945329	ENSMUST00000 087328.3	Hspa1a	ENSMUSG00 000091971	heat shock protein 1A Source MGI Symbol Acc MGI 96244
D01	SBM1066582	ENSMUST00000 169032.7	Idh1	ENSMUSG00 000025950	isocitrate dehydrogenase 1 (NADP+), soluble Source MGI Symbol Acc MGI 96413
D02	SBM1077750	ENSMUST00000 202589.1	Ift172	ENSMUSG00 000038564	intraflagellar transport 172 Source MGI Symbol Acc MGI 2682064
D03	SBM0772465	ENSMUST00000 187410.6	Il19	ENSMUSG00 000016524	interleukin 19 Source MGI Symbol Acc MGI 1890472
D04	SBM0998851	ENSMUST00000 096691.4	Il22	ENSMUSG00 000074695	interleukin 22 Source MGI Symbol Acc MGI 1355307
D05	SBM1036235	ENSMUST00000 230798.1	Krt1	ENSMUSG00 000046834	keratin 1 Source MGI Symbol Acc MGI 96698
D06	SBM0751530	ENSMUST00000 157004.1	Lpo	ENSMUSG00 000009356	lactoperoxidase Source MGI Symbol Acc MGI 1923363
D07	SBM1024274	ENSMUST00000 169226.8	Mb	ENSMUSG00 000018893	myoglobin Source MGI Symbol Acc MGI 96922
D08	SBM1011865	ENSMUST00000 107930.2	Mpo	ENSMUSG00 000009350	myeloperoxidase Source MGI Symbol Acc MGI 97137
D09	SBM0844499	ENSMUST00000 126934.2	Ncf1	ENSMUSG00 000015950	neutrophil cytosolic factor 1 Source MGI Symbol Acc MGI 97283
D10	SBM1009456	ENSMUST00000 190323.6	Ncf2	ENSMUSG00 000026480	neutrophil cytosolic factor 2 Source MGI Symbol Acc MGI 97284
D11	SBM0856604	ENSMUST00000 021420.13	Ngb	ENSMUSG00 000021032	neuroglobin Source MGI Symbol Acc MGI 2151886
D12	SBM0835086	ENSMUST00000 208783.1	Nos2	ENSMUSG00 000020826	nitric oxide synthase 2, inducible Source MGI Symbol Acc MGI 97361
E01	SBM0993594	ENSMUST00000 159231.2	Nox1	ENSMUSG00 000031257	NADPH oxidase 1 Source MGI Symbol Acc MGI 2450016
E02	SBM0915544	ENSMUST00000 126887.7	Nox4	ENSMUSG00 000030562	NADPH oxidase 4 Source MGI Symbol Acc MGI 1354184
E03	SBM0980396	ENSMUST00000 044018.7	Noxa1	ENSMUSG00 000036805	NADPH oxidase activator 1 Source MGI Symbol Acc MGI 2449980
E04	SBM0975396	ENSMUST00000 123026.7	Noxo1	ENSMUSG00 000019320	NADPH oxidase organizer 1 Source MGI Symbol Acc MGI 1919143
E05	SBM0878519	ENSMUST00000 003947.8	Nqo1	ENSMUSG00 000003849	NAD(P)H dehydrogenase, quinone 1 Source MGI Symbol Acc MGI 103187
E06	SBM1060425	ENSMUST00000 128075.7	Park7	ENSMUSG00 000028964	Parkinson disease (autosomal recessive, early onset) 7 Source MGI Symbol Acc MGI 2135637
E07	SBM0764176	ENSMUST00000 129315.7	Prdx1	ENSMUSG00 000028691	peroxiredoxin 1 Source MGI Symbol Acc MGI 99523
E08	SBM0684492	ENSMUST00000 164807.1	Prdx2	ENSMUSG00 000005161	peroxiredoxin 2 Source MGI Symbol Acc MGI 109486
E09	SBM0768883	ENSMUST00000 025961.6	Prdx3	ENSMUSG00 000024997	peroxiredoxin 3 Source MGI Symbol Acc MGI 88034
E10	SBM0955195	ENSMUST00000 026328.10	Prdx4	ENSMUSG00 000025289	peroxiredoxin 4 Source MGI Symbol Acc MGI 1859815
E11	SBM1061277	ENSMUST00000 173091.1	Prdx5	ENSMUSG00 000024953	peroxiredoxin 5 Source MGI Symbol Acc MGI 1859821
E12	SBM0987299	ENSMUST00000 139387.7	Prdx6	ENSMUSG00 000026701	peroxiredoxin 6 Source MGI Symbol Acc MGI 894320
F01	SBM0821511	ENSMUST00000 091288.12	Prnp	ENSMUSG00 000079037	prion protein Source MGI Symbol Acc MGI 97769
F02	SBM0750722	ENSMUST00000 022803.5	Psmb5	ENSMUSG00 000022193	proteasome (prosome, macropain) subunit, beta type 5 Source MGI Symbol Acc MGI 1194513
F03	SBM0775877	ENSMUST00000 149930.2	Ptgs1	ENSMUSG00 000047250	prostaglandin-endoperoxide synthase 1 Source MGI Symbol Acc MGI 97797
F04	SBM0782881	ENSMUST00000 035065.8	Ptgs2	ENSMUSG00 000032487	prostaglandin-endoperoxide synthase 2 Source MGI Symbol Acc MGI 97798
F05	SBM1058237	ENSMUST00000 044031.3	Rag2	ENSMUSG00 000032864	recombination activating gene 2 Source MGI Symbol Acc MGI 97849
F06	SBM0840147	ENSMUST00000 230544.1	Recql4	ENSMUSG00 000033762	RecQ protein-like 4 Source MGI Symbol Acc MGI 1931028
F07	SBM0890897	ENSMUST00000 236824.1	Scd1	ENSMUSG00 000037071	stearoyl-Coenzyme A desaturase 1 Source MGI Symbol Acc MGI 98239
F08	SBM0850201	ENSMUST00000 016951.7	Serpinb1b	ENSMUSG00 000051029	serine (or cysteine) peptidase inhibitor, clade B, member 1b Source MGI Symbol Acc MGI 2445361
F09	SBM1028243	ENSMUST00000 088454.12	Slc38a1	ENSMUSG00 000023169	solute carrier family 38, member 1 Source MGI Symbol Acc MGI 2145895
F10	SBM0946306	ENSMUST00000 023707.10	Sod1	ENSMUSG00 000022982	superoxide dismutase 1, soluble Source MGI Symbol Acc MGI 98351

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBM1063571	ENSMUST00000233791.1	Sod2	ENSMUSG00000006818	superoxide dismutase 2, mitochondrial Source MGI Symbol Acc MGI 98352
F12	SBM1072491	ENSMUST00000101208.5	Sod3	ENSMUSG00000072941	superoxide dismutase 3, extracellular Source MGI Symbol Acc MGI 103181
G01	SBM1075778	ENSMUST00000131214.1	Sqstm1	ENSMUSG00000015837	sequestosome 1 Source MGI Symbol Acc MGI 107931
G02	SBM0863812	ENSMUST00000128882.1	Srxn1	ENSMUSG00000032802	sulfiredoxin 1 homolog (S. cerevisiae) Source MGI Symbol Acc MGI 104971
G03	SBM0913427	ENSMUST00000021005.14	Tpo	ENSMUSG00000020673	thyroid peroxidase Source MGI Symbol Acc MGI 98813
G04	SBM0878537	ENSMUST00000030051.5	Txn1	ENSMUSG00000028367	thioredoxin 1 Source MGI Symbol Acc MGI 98874
G05	SBM1060480	ENSMUST00000049093.7	Txnip	ENSMUSG00000038393	thioredoxin interacting protein Source MGI Symbol Acc MGI 1889549
G06	SBM1225401	ENSMUST00000218694.1	Txnrd1	ENSMUSG00000020250	thioredoxin reductase 1 Source MGI Symbol Acc MGI 1354175
G07	SBM0869696	ENSMUST00000115604.7	Txnrd2	ENSMUSG00000075704	thioredoxin reductase 2 Source MGI Symbol Acc MGI 1347023
G08	SBM0688521	ENSMUST00000101171.1	Txnrd3	ENSMUSG00000000811	thioredoxin reductase 3 Source MGI Symbol Acc MGI 2386711
G09	SBM0938442	ENSMUST00000207748.1	Ucp2	ENSMUSG00000033685	uncoupling protein 2 (mitochondrial, proton carrier) Source MGI Symbol Acc MGI 109354
G10	SBM0890962	ENSMUST00000107059.1	Ucp3	ENSMUSG00000032942	uncoupling protein 3 (mitochondrial, proton carrier) Source MGI Symbol Acc MGI 1099787
G11	SBM0684573	ENSMUST00000028062.7	Vim	ENSMUSG00000026728	vimentin Source MGI Symbol Acc MGI 98932
G12	SBM0953059	ENSMUST00000058232.10	Xpa	ENSMUSG00000028329	xeroderma pigmentosum, complementation group A Source MGI Symbol Acc MGI 99135
H01	SBM1220560	ENSMUST00000100497.10	Actb	ENSMUSG00000029580	actin, beta Source MGI Symbol Acc MGI 87904
H02	SBM0675336	ENSMUST00000102476.4	B2m	ENSMUSG00000060802	beta-2 microglobulin Source MGI Symbol Acc MGI 88127
H03	SBM1220562	ENSMUST00000117757.8	Gapdh	ENSMUSG00000057666	glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640
H04	SBM1220563	ENSMUST00000026613.13	Gusb	ENSMUSG00000025534	glucuronidase, beta Source MGI Symbol Acc MGI 95872
H05	SBM1220564	ENSMUST00000166469.7	Hsp90ab1	ENSMUSG00000023944	heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247
H06	SBM1218554	Sybr_MGDC	MGDC	Sybr_MGDC	Mouse 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 µl reactions: 20 µl 8x gDNA Removal Mix, 10 µl Reverse Transcription Enzyme, 40 µl Reverse Transcription Mix (containing RT primers), 20 µl Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 µl QuantiNova SYBR Green RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl 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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