

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

Human Nitric Oxide Signaling Pathway

Cat. no. 249950 SBHS-062ZA

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 for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	AKT1	ALOX12	APOE	ARG2	ATOX1	CAMK1	CAT	CCNA1	CCS	CDKN1A	CSDE1	CYGB
B	DDAH2	DLG4	DUOX1	DUOX2	DUSP1	DYNLL1	EGFR	EPX	FOXO1	GCH1	GCHFR	GLA
C	GLRX2	GPR156	GPX1	GPX2	GPX3	GPX4	GPX5	GPX6	GRIN2D	GSS	HSP90AB1	IL10
D	CXCL8	INS	JUN	KRT1	LPO	MBL2	MPD	MSRA	MT3	TESMIN	MYB	NCF1
E	NCF2	NME5	NOS1	NOS1AP	NOS2	NOS3	NOX5	NQO1	NUDT1	OXR1	PNKP	PPP3CA
F	PRDX2	PRDX5	PRDX6	PREX1	PRG3	PRKAR1B	PRKCA	PRNP	RNF7	SCARA3	SCRT2	SELENOS
G	SELENOP	SGK2	SIRT2	SOD1	SOD2	SOD3	SRXN1	TPO	TROAP	TTN	TXNRD2	VEGFA
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBH0095396	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A02	SBH1219735	ENST00000251535.11	ALOX12	ENSG00000108839	arachidonate 12-lipoxygenase, 12S type Source HGNC Symbol Acc HGNC 429
A03	SBH0562930	ENST00000434152.5	APOE	ENSG00000130203	apolipoprotein E Source HGNC Symbol Acc HGNC 613
A04	SBH0617061	ENST00000556491.1	ARG2	ENSG00000081181	arginase 2 Source HGNC Symbol Acc HGNC 664
A05	SBH0440975	ENST00000520382.5	ATOX1	ENSG00000177556	antioxidant 1 copper chaperone Source HGNC Symbol Acc HGNC 798
A06	SBH0009969	ENST00000421120.1	CAMK1	ENSG00000134072	calcium/calmodulin dependent protein kinase I Source HGNC Symbol Acc HGNC 1459
A07	SBH1219829	ENST00000648322.1	CAT	ENSG00000121691	catalase Source HGNC Symbol Acc HGNC 1516
A08	SBH0219497	ENST00000440264.5	CCNA1	ENSG00000133101	cyclin A1 Source HGNC Symbol Acc HGNC 1577
A09	SBH1219856	ENST00000310190.8	CCS	ENSG00000173992	copper chaperone for superoxide dismutase Source HGNC Symbol Acc HGNC 1613
A10	SBH0608500	ENST00000244741.9	CDKN1A	ENSG00000124762	cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784
A11	SBH0601361	ENST00000483030.1	CSDE1	ENSG00000009307	cold shock domain containing E1 Source HGNC Symbol Acc HGNC 29905
A12	SBH0559484	ENST00000589342.1	CYGB	ENSG00000161544	cytoglobin Source HGNC Symbol Acc HGNC 16505
B01	SBH0189299	ENST00000375787.6	DDAH2	ENSG00000213722	dimethylarginine dimethylaminohydrolase 2 Source HGNC Symbol Acc HGNC 2716
B02	SBH0179092	ENST00000491753.2	DLG4	ENSG00000132535	discs large MAGUK scaffold protein 4 Source HGNC Symbol Acc HGNC 2903
B03	SBH1219961	ENST00000561166.1	DUOX1	ENSG00000137857	dual oxidase 1 Source HGNC Symbol Acc HGNC 3062
B04	SBH0106490	ENST00000603300.1	DUOX2	ENSG00000140279	dual oxidase 2 Source HGNC Symbol Acc HGNC 13273
B05	SBH1219962	ENST00000239223.4	DUSP1	ENSG00000120129	dual specificity phosphatase 1 Source HGNC Symbol Acc HGNC 3064
B06	SBH0652725	ENST00000549989.1	DYNLL1	ENSG00000088986	dynein light chain LC8-type 1 Source HGNC Symbol Acc HGNC 15476
B07	SBH1219970	ENST00000454757.6	EGFR	ENSG00000146648	epidermal growth factor receptor Source HGNC Symbol Acc HGNC 3236
B08	SBH1219980	ENST00000225371.6	EPX	ENSG00000121053	eosinophil peroxidase Source HGNC Symbol Acc HGNC 3423
B09	SBH0123059	ENST00000359843.7	FOXM1	ENSG00000111206	forkhead box M1 Source HGNC Symbol Acc HGNC 3818
B10	SBH0533750	ENST00000622544.4	GCH1	ENSG00000131979	GTP cyclohydrolase 1 Source HGNC Symbol Acc HGNC 4193
B11	SBH0277644	ENST00000558467.1	GCHFR	ENSG00000137880	GTP cyclohydrolase I feedback regulator Source HGNC Symbol Acc HGNC 4194
B12	SBH0031579	ENST00000479445.1	GLA	ENSG00000102393	galactosidase alpha Source HGNC Symbol Acc HGNC 4296
C01	SBH0273257	ENST00000367440.3	GLRX2	ENSG00000023572	glutaredoxin 2 Source HGNC Symbol Acc HGNC 16065
C02	SBH0573157	ENST00000461057.1	GPR156	ENSG00000175697	G protein-coupled receptor 156 Source HGNC Symbol Acc HGNC 20844
C03	SBH1220032	ENST00000620890.1	GPX1	ENSG00000233276	glutathione peroxidase 1 Source HGNC Symbol Acc HGNC 4553
C04	SBH1220033	ENST00000612794.1	GPX2	ENSG00000176153	glutathione peroxidase 2 Source HGNC Symbol Acc HGNC 4554
C05	SBH1220034	ENST00000521650.5	GPX3	ENSG00000211445	glutathione peroxidase 3 Source HGNC Symbol Acc HGNC 4555
C06	SBH0561926	ENST00000354171.12	GPX4	ENSG00000167468	glutathione peroxidase 4 Source HGNC Symbol Acc HGNC 4556
C07	SBH1220035	ENST00000412168.6	GPX5	ENSG00000224586	glutathione peroxidase 5 Source HGNC Symbol Acc HGNC 4557
C08	SBH1220036	ENST00000361902.5	GPX6	ENSG00000198704	glutathione peroxidase 6 Source HGNC Symbol Acc HGNC 4558
C09	SBH0258923	ENST00000263269.3	GRIN2D	ENSG00000105464	glutamate ionotropic receptor NMDA type subunit 2D Source HGNC Symbol Acc HGNC 4588
C10	SBH0048224	ENST00000216951.7	GSS	ENSG00000100983	glutathione synthetase Source HGNC Symbol Acc HGNC 4624
		ENST00000371		ENSG000000	heat shock protein 90 alpha family class B member 1 Source HGNC Symbol

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH1220555	646.10	HSP90AB1	096384	Acc HGNC 5258
C12	SBH1220095	ENST00000423557.1	IL10	ENSG00000136634	interleukin 10 Source HGNC Symbol Acc HGNC 5962
D01	SBH1219932	ENST00000401931.1	CXCL8	ENSG00000169429	C-X-C motif chemokine ligand 8 Source HGNC Symbol Acc HGNC 6025
D02	SBH0403664	ENST00000250971.7	INS	ENSG00000254647	insulin Source HGNC Symbol Acc HGNC 6081
D03	SBH0613340	ENST00000371222.3	JUN	ENSG00000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
D04	SBH0079137	ENST00000252244.3	KRT1	ENSG00000167768	keratin 1 Source HGNC Symbol Acc HGNC 6412
D05	SBH0520446	ENST00000262290.8	LPO	ENSG00000167419	lactoperoxidase Source HGNC Symbol Acc HGNC 6678
D06	SBH0384612	ENST00000373968.3	MBL2	ENSG00000165471	mannose binding lectin 2 Source HGNC Symbol Acc HGNC 6922
D07	SBH0239322	ENST00000225275.3	MPO	ENSG00000005381	myeloperoxidase Source HGNC Symbol Acc HGNC 7218
D08	SBH0585841	ENST00000522907.5	MSRA	ENSG00000175806	methionine sulfoxide reductase A Source HGNC Symbol Acc HGNC 7377
D09	SBH1220231	ENST00000561640.5	MT3	ENSG00000087250	metallothionein 3 Source HGNC Symbol Acc HGNC 7408
D10	SBH0547816	ENST00000540869.5	TESMIN	ENSG00000132749	testis expressed metallothionein like protein Source HGNC Symbol Acc HGNC 7446
D11	SBH0113462	ENST00000316528.12	MYB	ENSG00000118513	MYB proto-oncogene, transcription factor Source HGNC Symbol Acc HGNC 7545
D12	SBH0562991	ENST00000289473.8	NCF1	ENSG00000158517	neutrophil cytosolic factor 1 Source HGNC Symbol Acc HGNC 7660
E01	SBH0436209	ENST00000367535.7	NCF2	ENSG00000116701	neutrophil cytosolic factor 2 Source HGNC Symbol Acc HGNC 7661
E02	SBH0420425	ENST00000265191.4	NME5	ENSG00000112981	NME/NM23 family member 5 Source HGNC Symbol Acc HGNC 7853
E03	SBH0001706	ENST00000317775.11	NOS1	ENSG00000089250	nitric oxide synthase 1 Source HGNC Symbol Acc HGNC 7872
E04	SBH0567649	ENST00000530878.5	NOS1AP	ENSG00000198929	nitric oxide synthase 1 adaptor protein Source HGNC Symbol Acc HGNC 16859
E05	SBH0408796	ENST00000313735.10	NOS2	ENSG00000007171	nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873
E06	SBH1220272	ENST00000297494.8	NOS3	ENSG00000164867	nitric oxide synthase 3 Source HGNC Symbol Acc HGNC 7876
E07	SBH1220275	ENST00000448182.7	NOX5	ENSG00000255346	NADPH oxidase 5 Source HGNC Symbol Acc HGNC 14874
E08	SBH1220279	ENST00000320623.10	NQO1	ENSG00000181019	NAD(P)H quinone dehydrogenase 1 Source HGNC Symbol Acc HGNC 2874
E09	SBH0380548	ENST00000356714.5	NUDT1	ENSG00000106268	nudix hydrolase 1 Source HGNC Symbol Acc HGNC 8048
E10	SBH0424803	ENST00000312046.10	OXR1	ENSG00000164830	oxidation resistance 1 Source HGNC Symbol Acc HGNC 15822
E11	SBH1220318	ENST00000322344.8	PNKP	ENSG00000039650	polynucleotide kinase 3 -phosphatase Source HGNC Symbol Acc HGNC 9154
E12	SBH0472618	ENST00000394854.8	PPP3CA	ENSG00000138814	protein phosphatase 3 catalytic subunit alpha Source HGNC Symbol Acc HGNC 9314
F01	SBH1220327	ENST00000301522.3	PRDX2	ENSG00000167815	peroxiredoxin 2 Source HGNC Symbol Acc HGNC 9353
F02	SBH0542658	ENST00000347941.4	PRDX5	ENSG00000126432	peroxiredoxin 5 Source HGNC Symbol Acc HGNC 9355
F03	SBH1220330	ENST00000340385.6	PRDX6	ENSG00000117592	peroxiredoxin 6 Source HGNC Symbol Acc HGNC 16753
F04	SBH1220331	ENST00000371941.4	PREX1	ENSG00000124126	phosphatidylinositol-3,4,5-trisphosphate dependent Rac exchange factor 1 Source HGNC Symbol Acc HGNC 32594
F05	SBH0283994	ENST00000287143.2	PRG3	ENSG00000156575	proteoglycan 3, pro eosinophil major basic protein 2 Source HGNC Symbol Acc HGNC 9363
F06	SBH0407473	ENST00000406797.5	PRKAR1B	ENSG00000188191	protein kinase cAMP-dependent type I regulatory subunit beta Source HGNC Symbol Acc HGNC 9390
F07	SBH0105563	ENST00000578063.5	PRKCA	ENSG00000154229	protein kinase C alpha Source HGNC Symbol Acc HGNC 9393
F08	SBH1220337	ENST00000379440.8	PRNP	ENSG00000171867	prion protein Source HGNC Symbol Acc HGNC 9449
F09	SBH1220374	ENST00000273480.4	RNF7	ENSG00000114125	ring finger protein 7 Source HGNC Symbol Acc HGNC 10070
F10	SBH1220381	ENST00000337221.8	SCARA3	ENSG00000168077	scavenger receptor class A member 3 Source HGNC Symbol Acc HGNC 19000

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0569224	ENST00000246104.7	SCRT2	ENSG00000215397	scratch family transcriptional repressor 2 Source HGNC Symbol Acc HGNC 15952
F12	SBH1220519	ENST00000528346.1	SELENOS	ENSG00000131871	selenoprotein S Source HGNC Symbol Acc HGNC 30396
G01	SBH1220387	ENST00000511224.5	SELENOP	ENSG00000250722	selenoprotein P Source HGNC Symbol Acc HGNC 10751
G02	SBH0389997	ENST00000496343.6	SGK2	ENSG00000101049	SGK2, serine/threonine kinase 2 Source HGNC Symbol Acc HGNC 13900
G03	SBH1220399	ENST00000414941.5	SIRT2	ENSG00000068903	sirtuin 2 Source HGNC Symbol Acc HGNC 10886
G04	SBH0278498	ENST00000270142.10	SOD1	ENSG00000142168	superoxide dismutase 1 Source HGNC Symbol Acc HGNC 11179
G05	SBH1220414	ENST00000535561.5	SOD2	ENSG00000112096	superoxide dismutase 2 Source HGNC Symbol Acc HGNC 11180
G06	SBH1220415	ENST00000382120.4	SOD3	ENSG00000109610	superoxide dismutase 3 Source HGNC Symbol Acc HGNC 11181
G07	SBH0329436	ENST00000381962.3	SRXN1	ENSG00000271303	sulfiredoxin 1 Source HGNC Symbol Acc HGNC 16132
G08	SBH1220490	ENST00000346956.7	TPO	ENSG00000115705	thyroid peroxidase Source HGNC Symbol Acc HGNC 12015
G09	SBH0287040	ENST00000551192.5	TROAP	ENSG00000135451	trophinin associated protein Source HGNC Symbol Acc HGNC 12327
G10	SBH1220495	ENST00000615779.5	TTN	ENSG00000155657	titin Source HGNC Symbol Acc HGNC 12403
G11	SBH1220499	ENST00000400518.5	TXNRD2	ENSG00000184470	thioredoxin reductase 2 Source HGNC Symbol Acc HGNC 18155
G12	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
H01	SBH1220543	ENST00000646664.1	ACTB	ENSG00000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	SBH1220550	ENST00000558401.6	B2M	ENSG00000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	SBH1220545	ENST00000396861.5	GAPDH	ENSG00000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	SBH1220546	ENST00000298556.8	HPRT1	ENSG00000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	SBH1220553	ENST00000546989.5	RPLP0	ENSG00000089157	ribosomal protein lateral stalk subunit P0 Source HGNC Symbol Acc HGNC 10371
H06	SBH1218553	Sybr_HGDC	HGDC	Sybr_HGDC	Human 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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