

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

Rat Nephrotoxicity

Cat. no. 249950 SBRN-094ZA

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	LOC1009115 45	Aass	Abcb1a	Abcc2	Aldh1a1	Angptl4	Anxa5	Atf3	Bhmt	Bmp1	Bmp4	Blg2
B	Calb1	Cat	Ccl3	Ccnd1	Ccng1	Ccs	Cd24	Cd44	Cdkn1a	Clu	Cp	Cst3
C	Ctss	Cxcl1	Cxcl10	Cyp2c11	Cyp2d4	Ccn1	Egf	Fgb	Fmo2	Fn1	G6pc	G6pd
D	Gadd45a	Gamt	Gatm	Gc	Ghr	Glul	Gpnmb	Gpx8	Gstk1	Gstp1	Havr1	Hmox1
E	Hmox2	Hsp90aa1	Idh1	Igfbp1	Igfbp3	Ipmk	Klk1	Lcn2	Lgals3	Mcm6	Mgp	AC128848.1
F	Nox4	Nphs2	Nqo1	Oat	Odc1	Rgn	Rtn4	Scd2	Slc22a1	Slc22a5	Slc22a6	Socs3
G	Sod2	Sod3	Spp1	Sprr1a	Timp1	LOC1003644 35	Tnfrsf12a	Uchl1	Ugt1a3	Cxcl3	Vcam1	Vim
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	SBR1166452	ENSRNOT00000019346.6	LOC100911545	ENSRNOG0000028896	alpha-2-macroglobulin-like Source RGD Symbol Acc 6492449
A02	SBR1104320	ENSRNOT00000060530.4	Aass	ENSRNOG0000039494	aminoadipate-semialdehyde synthase Source RGD Symbol Acc 1310811
A03	SBR1116067	ENSRNOT00000082359.1	Abcb1a	ENSRNOG0000008012	ATP binding cassette subfamily B member 4 Source RGD Symbol Acc 620248
A04	SBR1119829	ENSRNOT00000070861.2	Abcc2	ENSRNOG0000046727	ATP binding cassette subfamily C member 2 Source RGD Symbol Acc 2366
A05	SBR1184560	ENSRNOT00000024000.6	Aldh1a1	ENSRNOG0000017619	aldehyde dehydrogenase 1 family, member A1 Source RGD Symbol Acc 2087
A06	SBR1186322	ENSRNOT00000010031.6	Angptl4	ENSRNOG0000007545	angiopoietin-like 4 Source RGD Symbol Acc 735058
A07	SBR1096992	ENSRNOT00000019554.6	Anxa5	ENSRNOG0000014453	annexin A5 Source RGD Symbol Acc 2120
A08	SBR1108284	ENSRNOT00000089841.1	Atf3	ENSRNOG0000003745	activating transcription factor 3 Source RGD Symbol Acc 2165
A09	SBR1189190	ENSRNOT00000015336.3	Bhmt	ENSRNOG0000011200	betaine-homocysteine S-methyltransferase Source RGD Symbol Acc 621496
A10	SBR1170880	ENSRNOT00000046054.4	Bmp1	ENSRNOG0000010890	bone morphogenetic protein 1 Source RGD Symbol Acc 620739
A11	SBR1132271	ENSRNOT00000012957.6	Bmp4	ENSRNOG0000009694	bone morphogenetic protein 4 Source RGD Symbol Acc 2213
A12	SBR1132920	ENSRNOT00000004408.3	Btg2	ENSRNOG0000003300	BTG anti-proliferation factor 2 Source RGD Symbol Acc 2225
B01	SBR1136350	ENSRNOT00000010845.4	Calb1	ENSRNOG0000007456	calbindin 1 Source RGD Symbol Acc 69340
B02	SBR1123529	ENSRNOT00000011230.5	Cat	ENSRNOG0000008364	catalase Source RGD Symbol Acc 2279
B03	SBR1146662	ENSRNOT00000015139.3	Ccl3	ENSRNOG0000011205	C-C motif chemokine ligand 3 Source RGD Symbol Acc 3647
B04	SBR1211432	ENSRNOT00000028411.3	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
B05	SBR1159654	ENSRNOT00000065633.3	Ccng1	ENSRNOG0000003256	cyclin G1 Source RGD Symbol Acc 2295
B06	SBR1140988	ENSRNOT00000073983.2	Ccs	ENSRNOG0000047816	copper chaperone for superoxide dismutase Source RGD Symbol Acc 620403
B07	SBR1133513	ENSRNOT00000000352.5	Cd24	ENSRNOG0000000321	CD24 molecule Source RGD Symbol Acc 2298
B08	SBR1148883	ENSRNOT00000009000.7	Cd44	ENSRNOG0000006094	CD44 molecule (Indian blood group) Source RGD Symbol Acc 2307
B09	SBR1145142	ENSRNOT00000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B10	SBR1134172	ENSRNOT00000078861.1	Clu	ENSRNOG0000016460	clusterin Source RGD Symbol Acc 3907
B11	SBR1193381	ENSRNOT00000016083.5	Cp	ENSRNOG0000011913	ceruloplasmin Source RGD Symbol Acc 2387
B12	SBR1198662	ENSRNOT00000007175.6	Cst3	ENSRNOG0000005195	cystatin C Source RGD Symbol Acc 2432
C01	SBR1107619	ENSRNOT00000028732.7	Ctss	ENSRNOG0000021157	cathepsin S Source RGD Symbol Acc 621513
C02	SBR1198580	ENSRNOT00000003778.3	Cxcl1	ENSRNOG0000002802	C-X-C motif chemokine ligand 1 Source RGD Symbol Acc 619869
C03	SBR1153857	ENSRNOT00000003075.7	Cxcl10	ENSRNOG0000022256	C-X-C motif chemokine ligand 10 Source RGD Symbol Acc 620209
C04	SBR1096093	ENSRNOT00000088853.1	Cyp2c11	ENSRNOG0000052810	cytochrome P450, subfamily 2, polypeptide 11 Source RGD Symbol Acc 2469
C05	SBR1150695	ENSRNOT00000011880.6	Cyp2d4	ENSRNOG0000032261	cytochrome P450, family 2, subfamily d, polypeptide 4 Source RGD Symbol Acc 620640
C06	SBR1128717	ENSRNOT00000019501.4	Ccn1	ENSRNOG0000014350	cellular communication network factor 1 Source RGD Symbol Acc 620763
C07	SBR1200927	ENSRNOT00000087007.1	Egf	ENSRNOG0000053979	epidermal growth factor Source RGD Symbol Acc 2542
C08	SBR1202833	ENSRNOT00000009813.3	Fgb	ENSRNOG0000007092	fibrinogen beta chain Source RGD Symbol Acc 2604
C09	SBR1128970	ENSRNOT00000004762.5	Fmo2	ENSRNOG0000003510	flavin containing monooxygenase 2 Source RGD Symbol Acc 628600
C10	SBR1178912	ENSRNOT00000019772.6	Fn1	ENSRNOG0000014288	fibronectin 1 Source RGD Symbol Acc 2624
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1115882	028033.6	G6pc	000051171	glucose-6-phosphatase, catalytic subunit Source RGD Symbol Acc 2644
C12	SBR1179522	ENSRNOT00000080887.1	G6pd	ENSRNOG0000056728	glucose-6-phosphate dehydrogenase Source RGD Symbol Acc 2645
D01	SBR1179414	ENSRNOT00000007698.6	Gadd45a	ENSRNOG0000005615	growth arrest and DNA-damage-inducible, alpha Source RGD Symbol Acc 2654
D02	SBR1096666	ENSRNOT00000028969.4	Gamt	ENSRNOG0000024577	guanidinoacetate N-methyltransferase Source RGD Symbol Acc 2659
D03	SBR1112094	ENSRNOT00000000181.4	Gatm	ENSRNOG0000000168	glycine amidinotransferase Source RGD Symbol Acc 71090
D04	SBR1106988	ENSRNOT00000004174.4	Gc	ENSRNOG0000003119	GC, vitamin D binding protein Source RGD Symbol Acc 2667
D05	SBR1131686	ENSRNOT00000021081.6	Ghr	ENSRNOG0000015654	growth hormone receptor Source RGD Symbol Acc 2687
D06	SBR1200434	ENSRNOT00000075480.2	Glul	ENSRNOG0000049560	glutamate-ammonia ligase Source RGD Symbol Acc 2710
D07	SBR1200031	ENSRNOT00000011945.4	Gpnmb	ENSRNOG0000008816	glycoprotein nmb Source RGD Symbol Acc 71008
D08	SBR1100522	ENSRNOT00000013979.5	Gpx8	ENSRNOG0000010461	glutathione peroxidase 8 Source RGD Symbol Acc 1307506
D09	SBR1138442	ENSRNOT00000022275.4	Gstk1	ENSRNOG0000016484	glutathione S-transferase kappa 1 Source RGD Symbol Acc 735188
D10	SBR1125046	ENSRNOT00000024601.4	Gstp1	ENSRNOG0000018237	glutathione S-transferase pi 1 Source RGD Symbol Acc 2758
D11	SBR1165022	ENSRNOT00000009573.6	Havcr1	ENSRNOG0000007243	hepatitis A virus cellular receptor 1 Source RGD Symbol Acc 708425
D12	SBR1146734	ENSRNOT00000019192.6	Hmx1	ENSRNOG0000014117	heme oxygenase 1 Source RGD Symbol Acc 2806
E01	SBR1107613	ENSRNOT00000005031.5	Hmx2	ENSRNOG0000003773	heme oxygenase 2 Source RGD Symbol Acc 67402
E02	SBR1113341	ENSRNOT000000086310.1	Hsp90aa1	ENSRNOG0000059714	heat shock protein 90 alpha family class A member 1 Source RGD Symbol Acc 631409
E03	SBR1195467	ENSRNOT00000020322.5	Idh1	ENSRNOG0000015020	isocitrate dehydrogenase (NADP(+)) 1, cytosolic Source RGD Symbol Acc 2862
E04	SBR1203028	ENSRNOT00000077177.1	Igfbp1	ENSRNOG0000058780	insulin-like growth factor binding protein 1 Source RGD Symbol Acc 2872
E05	SBR1152057	ENSRNOT000000088355.1	Igfbp3	ENSRNOG0000061910	insulin-like growth factor binding protein 3 Source RGD Symbol Acc 2874
E06	SBR1190082	ENSRNOT00000000748.3	Ipmk	ENSRNOG0000000609	inositol polyphosphate multikinase Source RGD Symbol Acc 620954
E07	SBR1129714	ENSRNOT000000091964.1	Klk1	ENSRNOG0000032857	kallikrein 1-related peptidase C9 Source RGD Symbol Acc 727805
E08	SBR1205028	ENSRNOT00000018776.5	Lcn2	ENSRNOG0000013973	lipocalin 2 Source RGD Symbol Acc 69408
E09	SBR1182150	ENSRNOT00000014216.5	Lgals3	ENSRNOG0000010645	galectin 3 Source RGD Symbol Acc 69356
E10	SBR1198422	ENSRNOT00000004969.6	Mcm6	ENSRNOG0000003703	minichromosome maintenance complex component 6 Source RGD Symbol Acc 61967
E11	SBR1191997	ENSRNOT00000007577.5	Mgp	ENSRNOG0000005695	matrix Gla protein Source RGD Symbol Acc 3088
E12	SBR1218534	ENSRNOT00000038212.5	AC128848.1	ENSRNOG0000025764	
F01	SBR1109066	ENSRNOT00000018990.6	Nox4	ENSRNOG0000013925	NADPH oxidase 4 Source RGD Symbol Acc 620600
F02	SBR1194076	ENSRNOT00000005425.6	Nphs2	ENSRNOG0000004030	NPHS2, podocin Source RGD Symbol Acc 620461
F03	SBR1125692	ENSRNOT00000017174.5	Nqo1	ENSRNOG0000012772	NAD(P)H quinone dehydrogenase 1 Source RGD Symbol Acc 2503
F04	SBR1194970	ENSRNOT00000022628.5	Oat	ENSRNOG0000016807	ornithine aminotransferase Source RGD Symbol Acc 621724
F05	SBR1207804	ENSRNOT00000079185.1	Odc1	ENSRNOG0000005424	ornithine decarboxylase 1 Source RGD Symbol Acc 3227
F06	SBR1186701	ENSRNOT00000010984.5	Rgn	ENSRNOG0000007949	regucalcin Source RGD Symbol Acc 3560
F07	SBR1197081	ENSRNOT00000042965.3	Rtn4	ENSRNOG0000004621	reticulon 4 Source RGD Symbol Acc 620989
F08	SBR1116901	ENSRNOT00000075397.1	Scd2	ENSRNOG0000046005	stearoyl-Coenzyme A desaturase 2 Source RGD Symbol Acc 621177
F09	SBR1174804	ENSRNOT00000022254.5	Slc22a1	ENSRNOG0000016337	solute carrier family 22 member 1 Source RGD Symbol Acc 3224
F10	SBR1118779	ENSRNOT00000081898.1	Slc22a5	ENSRNOG0000008432	solute carrier family 22 member 5 Source RGD Symbol Acc 3702

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1153299	ENSRNOT00000024757.4	Slc22a6	ENSRNOG00000018215	solute carrier family 22 member 6 Source RGD Symbol Acc 69338
F12	SBR1139184	ENSRNOT00000003940.3	Socs3	ENSRNOG00000002946	suppressor of cytokine signaling 3 Source RGD Symbol Acc 621087
G01	SBR1204773	ENSRNOT00000025794.4	Sod2	ENSRNOG00000019048	superoxide dismutase 2 Source RGD Symbol Acc 3732
G02	SBR1093914	ENSRNOT00000005155.3	Sod3	ENSRNOG0000003869	superoxide dismutase 3 Source RGD Symbol Acc 3733
G03	SBR1210860	ENSRNOT00000075989.1	Spp1	ENSRNOG00000043451	secreted phosphoprotein 1 Source RGD Symbol Acc 3752
G04	SBR1216171	ENSRNOT00000012174.7	Spr1a	ENSRNOG00000024028	small proline-rich protein 1A Source RGD Symbol Acc 1593163
G05	SBR1154276	ENSRNOT00000013745.7	Timp1	ENSRNOG00000010208	TIMP metalloproteinase inhibitor 1 Source RGD Symbol Acc 621675
G06	SBR1146233	ENSRNOT00000022846.5	LOC100364435	ENSRNOG00000042499	thymosin, beta 10-like Source RGD Symbol Acc 2321025
G07	SBR1117414	ENSRNOT00000004842.5	Tnfrsf12a	ENSRNOG0000003546	TNF receptor superfamily member 12A Source RGD Symbol Acc 631329
G08	SBR1133680	ENSRNOT00000003248.5	Uchl1	ENSRNOG0000002343	ubiquitin C-terminal hydrolase L1 Source RGD Symbol Acc 3928
G09	SBR1165510	ENSRNOT00000025652.8	Ugt1a3	ENSRNOG00000018740	UDP glycosyltransferase 1 family, polypeptide A3 Source RGD Symbol Acc 1549728
G10	SBR1116913	ENSRNOT00000034090.3	Cxcl3	ENSRNOG00000028043	chemokine (C-X-C motif) ligand 3 Source RGD Symbol Acc 621812
G11	SBR1189462	ENSRNOT00000077972.1	Vcam1	ENSRNOG00000014333	vascular cell adhesion molecule 1 Source RGD Symbol Acc 3952
G12	SBR1197523	ENSRNOT00000024430.5	Vim	ENSRNOG00000018087	vimentin Source RGD Symbol Acc 621646
H01	SBR1220567	ENSRNOT00000042459.4	Actb	ENSRNOG00000034254	actin, beta Source RGD Symbol Acc 628837
H02	SBR1220568	ENSRNOT00000023017.5	B2m	ENSRNOG00000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	SBR1225377	ENSRNOT00000065935.3	Hprt1	ENSRNOG00000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	SBR1122313	ENSRNOT00000017468.2	Ldha	ENSRNOG00000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	SBR1220572	ENSRNOT00000018820.5	Rplp1	ENSRNOG00000013874	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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