

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

Rat Hepatotoxicity

Cat. no. 249950 SBRN-093ZR

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	Abcb11	Abcb1a	Abcb5	Abcc2	Abcc3	Aldoa	Apex1	Asah1	Atp8b1	Avpr1a	Bhmt	Btg2
B	Car3	Casp3	Cngl	RGD1565355	Cd68	Cdc14b	Cdkn1a	Col4a1	Cryl1	Cxcl12	Cyp1a2	Ddit4l
C	Ddx39a	Dnajb11	Dnajc3	Fabp1	Fads1	Emc9	Fasn	Fmo1	Timm10b	Gadd45a	Gdc	Gsr
D	Hao2	Hmox1	Hpn	Hyou1	Icam1	Igfals	Il6st	Ipo4	Krt18	Krt8	L2hgdh	Lgr5
E	Lpl	Lss	Maob	Map3k6	AABR0700669 1.1	Mcm10	AABR0703583 9.1	Mrps18b	Nqo1	Nus1	Osmr	Slc51a
F	Pdyn	Pla2g12a	Ppara	Psmc3	Pygl	Rb1	Rdx	Fam214a	Rhbg	S100a8	Scd	LOC299282
G	Serpine1	Skil	Slc17a3	LOC1009095 95	Slc39a6	Srebf1	Tagln	Thrsp	Cemip2	Txnrd1	Wipi1	Yrdc
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	SBR1176815	ENSRNOT00000075107.2	Abcb11	ENSRNOG0000050860	ATP binding cassette subfamily B member 11 Source RGD Symbol Acc 619930
A02	SBR1116067	ENSRNOT00000082359.1	Abcb1a	ENSRNOG0000008012	ATP binding cassette subfamily B member 4 Source RGD Symbol Acc 620248
A03	SBR1118482	ENSRNOT00000074197.2	Abcb5	ENSRNOG0000006398	ATP binding cassette subfamily B member 5 Source RGD Symbol Acc 1566342
A04	SBR1119829	ENSRNOT00000070861.2	Abcc2	ENSRNOG0000046727	ATP binding cassette subfamily C member 2 Source RGD Symbol Acc 2366
A05	SBR1130301	ENSRNOT00000079711.1	Abcc3	ENSRNOG0000002948	ATP binding cassette subfamily C member 3 Source RGD Symbol Acc 71101
A06	SBR1158667	ENSRNOT00000088473.1	Aldoa	ENSRNOG0000052802	aldolase, fructose-bisphosphate A Source RGD Symbol Acc 2089
A07	SBR1185931	ENSRNOT00000087958.1	Apex1	ENSRNOG0000009663	apurinic/aprimidinic endodeoxyribonuclease 1 Source RGD Symbol Acc 2126
A08	SBR1191827	ENSRNOT00000013463.4	Asah1	ENSRNOG0000010034	N-acylsphingosine amidohydrolase 1 Source RGD Symbol Acc 621568
A09	SBR1125252	ENSRNOT00000038652.5	Atp8b1	ENSRNOG0000024952	ATPase phospholipid transporting 8B1 Source RGD Symbol Acc 1308488
A10	SBR1183281	ENSRNOT00000005829.5	Avpr1a	ENSRNOG0000004400	arginine vasopressin receptor 1A Source RGD Symbol Acc 2185
A11	SBR1189190	ENSRNOT00000015336.3	Bhmt	ENSRNOG0000011200	betaine-homocysteine S-methyltransferase Source RGD Symbol Acc 621496
A12	SBR1132920	ENSRNOT00000004408.3	Btg2	ENSRNOG0000003300	BTG anti-proliferation factor 2 Source RGD Symbol Acc 2225
B01	SBR1125432	ENSRNOT00000014180.6	Car3	ENSRNOG0000010079	carbonic anhydrase 3 Source RGD Symbol Acc 2241
B02	SBR1123217	ENSRNOT00000014095.5	Casp3	ENSRNOG0000010475	caspase 3 Source RGD Symbol Acc 2275
B03	SBR1159654	ENSRNOT00000065633.3	Ccng1	ENSRNOG0000003256	cyclin G1 Source RGD Symbol Acc 2295
B04	SBR1160418	ENSRNOT00000076573.2	RGD1565355	ENSRNOG0000040108	similar to fatty acid translocase/CD36 Source RGD Symbol Acc 1565355
B05	SBR1182109	ENSRNOT00000056918.3	Cd68	ENSRNOG00000037563	Cd68 molecule Source RGD Symbol Acc 1305970
B06	SBR1163142	ENSRNOT00000079742.1	Cdc14b	ENSRNOG0000018999	cell division cycle 14B Source RGD Symbol Acc 1311163
B07	SBR1145142	ENSRNOT00000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B08	SBR1106782	ENSRNOT00000057386.2	Col4a1	ENSRNOG0000016281	collagen type IV alpha 1 chain Source RGD Symbol Acc 1307148
B09	SBR1115780	ENSRNOT00000012093.3	Cry11	ENSRNOG0000008989	crystallin, lambda 1 Source RGD Symbol Acc 631427
B10	SBR1209894	ENSRNOT00000066670.3	Cxcl12	ENSRNOG0000013589	C-X-C motif chemokine ligand 12 Source RGD Symbol Acc 3651
B11	SBR1120481	ENSRNOT00000021653.7	Cyp1a2	ENSRNOG0000016173	cytochrome P450, family 1, subfamily a, polypeptide 2 Source RGD Symbol Acc 2459
B12	SBR1185886	ENSRNOT00000013661.4	Ddit4l	ENSRNOG0000010047	DNA-damage-inducible transcript 4-like 2 Source RGD Symbol Acc 619738
C01	SBR1103715	ENSRNOT00000045974.4	Ddx39a	ENSRNOG0000004373	DEAD-box helicase 39A Source RGD Symbol Acc 619920
C02	SBR1179467	ENSRNOT00000002462.6	Dnajb11	ENSRNOG0000001803	DnaJ heat shock protein family (Hsp40) member B11 Source RGD Symbol Acc 1307373
C03	SBR1201517	ENSRNOT00000093411.1	Dnajc3	ENSRNOG0000010352	DnaJ heat shock protein family (Hsp40) member C3 Source RGD Symbol Acc 708518
C04	SBR1208364	ENSRNOT00000008840.5	Fabp1	ENSRNOG0000006675	fatty acid binding protein 1 Source RGD Symbol Acc 2590
C05	SBR1100776	ENSRNOT00000027834.4	Fads1	ENSRNOG0000020480	fatty acid desaturase 1 Source RGD Symbol Acc 621678
C06	SBR1191973	ENSRNOT00000026001.5	Emc9	ENSRNOG0000019162	ER membrane protein complex subunit 9 Source RGD Symbol Acc 1308113
C07	SBR1216475	ENSRNOT00000073321.2	Fasn	ENSRNOG0000045636	fatty acid synthase Source RGD Symbol Acc 620665
C08	SBR1110436	ENSRNOT00000041908.3	Fmo1	ENSRNOG0000034191	flavin containing monooxygenase 1 Source RGD Symbol Acc 2622
C09	SBR1105737	ENSRNOT00000076961.2	Timm10b	ENSRNOG0000050846	translocase of inner mitochondrial membrane 10B Source RGD Symbol Acc 71097
C10	SBR1179414	ENSRNOT00000007698.6	Gadd45a	ENSRNOG0000005615	growth arrest and DNA-damage-inducible, alpha Source RGD Symbol Acc 2654
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1095943	033196.3	Gclc	000006302	glutamate-cysteine ligase, catalytic subunit Source RGD Symbol Acc 619868
C12	SBR1141526	ENSRNOT00000020252.6	Gsr	ENSRNOG0000014915	glutathione-disulfide reductase Source RGD Symbol Acc 621747
D01	SBR1178245	ENSRNOT00000091845.1	Hao2	ENSRNOG00000019470	hydroxyacid oxidase 2 Source RGD Symbol Acc 70972
D02	SBR1146734	ENSRNOT00000019192.6	Hmox1	ENSRNOG00000014117	heme oxygenase 1 Source RGD Symbol Acc 2806
D03	SBR1134428	ENSRNOT00000077462.1	Hpn	ENSRNOG00000021097	hepsin Source RGD Symbol Acc 61982
D04	SBR1146585	ENSRNOT00000044613.4	Hyou1	ENSRNOG00000010944	hypoxia up-regulated 1 Source RGD Symbol Acc 621146
D05	SBR1152534	ENSRNOT00000028066.5	Icam1	ENSRNOG00000020679	intercellular adhesion molecule 1 Source RGD Symbol Acc 2857
D06	SBR1144668	ENSRNOT00000020233.5	Igfals	ENSRNOG00000015061	insulin-like growth factor binding protein, acid labile subunit Source RGD Symbol Acc 68429
D07	SBR1177389	ENSRNOT00000018877.7	Il6st	ENSRNOG00000013963	interleukin 6 signal transducer Source RGD Symbol Acc 2903
D08	SBR1185017	ENSRNOT00000026552.6	Ipo4	ENSRNOG00000019553	importin 4 Source RGD Symbol Acc 1305206
D09	SBR1165271	ENSRNOT00000073951.2	Krt18	ENSRNOG00000047393	keratin 18 Source RGD Symbol Acc 619935
D10	SBR1155292	ENSRNOT00000038480.4	Krt8	ENSRNOG00000009779	keratin 8 Source RGD Symbol Acc 2984
D11	SBR1216581	ENSRNOT00000006473.4	L2hgdh	ENSRNOG00000004857	L-2-hydroxyglutarate dehydrogenase Source RGD Symbol Acc 1306250
D12	SBR1162593	ENSRNOT00000005814.4	Lgr5	ENSRNOG00000004221	leucine rich repeat containing G protein coupled receptor 5 Source RGD Symbol Acc 1307733
E01	SBR1197775	ENSRNOT00000016543.3	Lpl	ENSRNOG00000012181	lipoprotein lipase Source RGD Symbol Acc 3017
E02	SBR1141758	ENSRNOT00000078412.1	Lss	ENSRNOG00000054549	lanosterol synthase Source RGD Symbol Acc 620955
E03	SBR1159358	ENSRNOT00000044009.5	Maob	ENSRNOG00000029778	monoamine oxidase B Source RGD Symbol Acc 3041
E04	SBR1098877	ENSRNOT00000012463.5	Map3k6	ENSRNOG00000008936	mitogen-activated protein kinase kinase kinase 6 Source RGD Symbol Acc 1304625
E05	SBR1147809	ENSRNOT00000050984.5	AABR07006691.1	ENSRNOG00000011637	
E06	SBR1168207	ENSRNOT00000024178.6	Mcm10	ENSRNOG00000017981	minichromosome maintenance 10 replication initiation factor Source RGD Symbol Acc 1311330
E07	SBR1136918	ENSRNOT00000076958.1	AABR07035839.1	ENSRNOG00000046171	
E08	SBR1102469	ENSRNOT00000001058.6	Mrps18b	ENSRNOG00000000804	mitochondrial ribosomal protein S18B Source RGD Symbol Acc 1302998
E09	SBR1125692	ENSRNOT00000017174.5	Nqo1	ENSRNOG00000012772	NAD(P)H quinone dehydrogenase 1 Source RGD Symbol Acc 2503
E10	SBR1210278	ENSRNOT00000000467.6	Nus1	ENSRNOG00000000411	NUS1 dehydrololichyl diphosphate synthase subunit Source RGD Symbol Acc 1307879
E11	SBR1163308	ENSRNOT000000080677.1	Osmr	ENSRNOG00000031192	oncostatin M receptor Source RGD Symbol Acc 1302983
E12	SBR1127906	ENSRNOT00000002405.5	Slc51a	ENSRNOG0000001765	solute carrier family 51, alpha subunit Source RGD Symbol Acc 1311100
F01	SBR1179011	ENSRNOT00000037576.3	Pdyn	ENSRNOG00000026036	prodynorphin Source RGD Symbol Acc 62054
F02	SBR1214927	ENSRNOT000000087287.1	Pla2g12a	ENSRNOG00000057470	phospholipase A2, group XIA Source RGD Symbol Acc 1304662
F03	SBR1163064	ENSRNOT00000078928.1	Ppara	ENSRNOG00000021463	peroxisome proliferator activated receptor alpha Source RGD Symbol Acc 3369
F04	SBR1170613	ENSRNOT00000076727.1	Psme3	ENSRNOG00000051344	proteasome activator subunit 3 Source RGD Symbol Acc 1306996
F05	SBR1211593	ENSRNOT00000009183.5	Pygl	ENSRNOG0000006388	glycogen phosphorylase L Source RGD Symbol Acc 620687
F06	SBR1123205	ENSRNOT00000021752.5	Rb1	ENSRNOG00000016029	RB transcriptional corepressor 1 Source RGD Symbol Acc 3540
F07	SBR1193917	ENSRNOT00000034924.5	Rdx	ENSRNOG00000012237	radixin Source RGD Symbol Acc 1359472
F08	SBR1214712	ENSRNOT000000080608.1	Fam214a	ENSRNOG00000058522	family with sequence similarity 214, member A Source RGD Symbol Acc 1310552
F09	SBR1205629	ENSRNOT00000026396.5	Rhbg	ENSRNOG00000019412	Rh family B glycoprotein Source RGD Symbol Acc 727813
F10	SBR1128955	ENSRNOT00000015473.3	S100a8	ENSRNOG00000011557	S100 calcium binding protein A8 Source RGD Symbol Acc 620265

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1116635	ENSRNOT00000018447.5	Scd	ENSRNOG00000013552	stearoyl-CoA desaturase Source RGD Symbol Acc 621176
F12	SBR1203327	ENSRNOT00000014073.5	LOC299282	ENSRNOG00000010478	Serine protease inhibitor Source RGD Symbol Acc 3745
G01	SBR1126485	ENSRNOT00000001916.2	Serpine1	ENSRNOG0000001414	serpin family E member 1 Source RGD Symbol Acc 3249
G02	SBR1165383	ENSRNOT00000013191.5	Skil	ENSRNOG0000009899	SKI-like proto-oncogene Source RGD Symbol Acc 621399
G03	SBR1125701	ENSRNOT00000091749.1	Slc17a3	ENSRNOG0000032745	solute carrier family 17 member 3 Source RGD Symbol Acc 628815
G04	SBR1211125	ENSRNOT00000088270.1	LOC100909595	ENSRNOG0000008376	solute carrier family 2 member 3 Source RGD Symbol Acc 3706
G05	SBR1207856	ENSRNOT00000079381.1	Slc39a6	ENSRNOG0000028703	solute carrier family 39 member 6 Source RGD Symbol Acc 1304664
G06	SBR1114531	ENSRNOT00000047053.6	Srebf1	ENSRNOG0000003463	sterol regulatory element binding transcription factor 1 Source RGD Symbol Acc 69423
G07	SBR1189114	ENSRNOT00000024030.6	Tagln	ENSRNOG0000017628	transgelin Source RGD Symbol Acc 3723
G08	SBR1175718	ENSRNOT00000016540.6	Thrsp	ENSRNOG0000012404	thyroid hormone responsive Source RGD Symbol Acc 3859
G09	SBR1157198	ENSRNOT00000087386.1	Cemip2	ENSRNOG0000012782	cell migration inducing hyaluronidase 2 Source RGD Symbol Acc 1307941
G10	SBR1158608	ENSRNOT00000089545.1	Txnrd1	ENSRNOG0000009088	thioredoxin reductase 1 Source RGD Symbol Acc 61959
G11	SBR1187883	ENSRNOT00000005172.7	Wipi1	ENSRNOG0000003827	WD repeat domain, phosphoinositide interacting 1 Source RGD Symbol Acc 1307754
G12	SBR1151602	ENSRNOT00000039870.4	Yrdc	ENSRNOG0000025424	yrnC N(6)-threonylcarbamoyltransferase domain containing Source RGD Symbol Acc 708492
H01	SBR1220567	ENSRNOT00000042459.4	Actb	ENSRNOG00000034254	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 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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