

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

Rat Neuronal Ion Channels

Cat. no. 249950 SBRN-036ZA

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	Asic2	Asic1	Asic3	Best1	Cacna1a	Cacna1b	Cacna1c	Cacna1d	Cacna1g	Cacna1i	Cacnb1	Cacnb2
B	Cacnb3	Caong2	Caong4	LOC108348101	Cln3	Cln7	Hcn1	Hcn2	Kcna1	Kcna2	Kcna5	Kcna6
C	Kcnab1	Kcnab2	Kcnab3	Kcnb1	AC125757.1	Kcnc1	Kcnc2	Kcnd1	Kcnd3	Kcnh1	Kcnh2	Kcnh3
D	Kcnh6	Kcnh7	Kcnj1	Kcnj11	Kcnj12	Kcnj13	Kcnj14	Kcnj15	Kcnj16	Kcnj2	Kcnj3	Kcnj4
E	Kcnj5	Kcnj6	Kcnj9	Kcnk1	Kcnma1	Kcnmb4	Kcnn1	Kcnn2	Kcnn3	Kcnq1	Kcnq2	Kcnq3
F	Kcns1	Ryr3	Scn10a	Scn11a	Scn1a	Scn1b	Scn2a	Scn2b	Scn3a	Scn8a	Scn9a	Slc12a5
G	Trpa1	Trpc1	Trpc3	Trpc6	Trpm1	Trpm2	Trpm6	Trpm8	Trpv1	Trpv2	Trpv3	Trpv4
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	SBR1213683	ENSRNOT00000086961.1	Asic2	ENSRNOG0000058308	acid sensing ion channel subunit 2 Source RGD Symbol Acc 2017
A02	SBR1124706	ENSRNOT00000088191.1	Asic1	ENSRNOG0000059765	acid sensing ion channel subunit 1 Source RGD Symbol Acc 71062
A03	SBR1164668	ENSRNOT00000011300.2	Asic3	ENSRNOG0000008380	acid sensing ion channel subunit 3 Source RGD Symbol Acc 708578
A04	SBR1100123	ENSRNOT00000007320.5	Best1	ENSRNOG0000020346	bestrophin 1 Source RGD Symbol Acc 1311656
A05	SBR1096958	ENSRNOT00000083448.1	Cacna1a	ENSRNOG0000052707	calcium voltage-gated channel subunit alpha1 A Source RGD Symbol Acc 2244
A06	SBR1185596	ENSRNOT00000006162.6	Cacna1b	ENSRNOG0000004560	calcium voltage-gated channel subunit alpha1 B Source RGD Symbol Acc 628852
A07	SBR1202754	ENSRNOT00000052017.6	Cacna1c	ENSRNOG0000007090	calcium voltage-gated channel subunit alpha1 C Source RGD Symbol Acc 2245
A08	SBR1166732	ENSRNOT00000048459.4	Cacna1d	ENSRNOG0000013147	calcium voltage-gated channel subunit alpha1 D Source RGD Symbol Acc 70973
A09	SBR1153561	ENSRNOT00000092024.1	Cacna1g	ENSRNOG0000060528	calcium voltage-gated channel subunit alpha1 G Source RGD Symbol Acc 68942
A10	SBR1171895	ENSRNOT00000084352.1	Cacna1i	ENSRNOG0000060407	calcium voltage-gated channel subunit alpha1 I Source RGD Symbol Acc 68944
A11	SBR1175227	ENSRNOT00000006098.5	Cacnb1	ENSRNOG0000004518	calcium voltage-gated channel auxiliary subunit beta 1 Source RGD Symbol Acc 68382
A12	SBR1181183	ENSRNOT00000031542.5	Cacnb2	ENSRNOG0000018378	calcium voltage-gated channel auxiliary subunit beta 2 Source RGD Symbol Acc 67385
B01	SBR1183478	ENSRNOT00000081206.1	Cacnb3	ENSRNOG0000054274	calcium voltage-gated channel auxiliary subunit beta 3 Source RGD Symbol Acc 2248
B02	SBR1119190	ENSRNOT00000008414.5	Cacng2	ENSRNOG0000006226	calcium voltage-gated channel auxiliary subunit gamma 2 Source RGD Symbol Acc 71095
B03	SBR1109759	ENSRNOT00000004383.3	Cacng4	ENSRNOG0000003262	calcium voltage-gated channel auxiliary subunit gamma 4 Source RGD Symbol Acc 628804
B04	SBR1201375	ENSRNOT00000073435.2	LOC108348101	ENSRNOG0000050854	chloride channel protein 2 Source RGD Symbol Acc 11384925
B05	SBR1188481	ENSRNOT00000083579.1	Clcn3	ENSRNOG0000010682	chloride voltage-gated channel 3 Source RGD Symbol Acc 621219
B06	SBR1171506	ENSRNOT00000023615.3	Clcn7	ENSRNOG0000016976	chloride voltage-gated channel 7 Source RGD Symbol Acc 61836
B07	SBR1126464	ENSRNOT00000089218.1	Hcn1	ENSRNOG0000055382	hyperpolarization-activated cyclic nucleotide-gated potassium channel 1 Source RGD Symbol Acc 620688
B08	SBR1097608	ENSRNOT00000011837.6	Hcn2	ENSRNOG0000008831	hyperpolarization activated cyclic nucleotide gated potassium and sodium channel 2 Source RGD Symbol Acc 620689
B09	SBR1136713	ENSRNOT00000026731.3	Kcna1	ENSRNOG0000019750	potassium voltage-gated channel subfamily A member 1 Source RGD Symbol Acc 2949
B10	SBR1153433	ENSRNOT00000092450.1	Kcna2	ENSRNOG0000018285	potassium voltage-gated channel subfamily A member 2 Source RGD Symbol Acc 2950
B11	SBR1172900	ENSRNOT00000026691.2	Kcna5	ENSRNOG0000019719	potassium voltage-gated channel subfamily A member 5 Source RGD Symbol Acc 2953
B12	SBR1195016	ENSRNOT00000080139.1	Kcna6	ENSRNOG0000052486	potassium voltage-gated channel subfamily A member 6 Source RGD Symbol Acc 62083
C01	SBR1200568	ENSRNOT00000077973.1	Kcnab1	ENSRNOG0000056697	potassium voltage-gated channel subfamily A member regulatory beta subunit 1 Source RGD Symbol Acc 61827
C02	SBR1195379	ENSRNOT00000015840.3	Kcnab2	ENSRNOG0000011550	potassium voltage-gated channel subfamily A regulatory beta subunit 2 Source RGD Symbol Acc 61828
C03	SBR1170460	ENSRNOT00000011523.5	Kcnab3	ENSRNOG0000008480	potassium voltage-gated channel subfamily A regulatory beta subunit 3 Source RGD Symbol Acc 61830
C04	SBR1106743	ENSRNOT00000074023.2	Kcnb1	ENSRNOG0000046949	potassium voltage-gated channel subfamily B member 1 Source RGD Symbol Acc 2954
C05	SBR1194512	ENSRNOT00000045460.2	AC125757.1	ENSRNOG0000028991	
C06	SBR1116814	ENSRNOT00000089488.1	Kcnc1	ENSRNOG0000055401	potassium voltage-gated channel subfamily C member 1 Source RGD Symbol Acc 2955
C07	SBR1192785	ENSRNOT00000005690.4	Kcnc2	ENSRNOG0000004077	potassium voltage-gated channel subfamily C member 2 Source RGD Symbol Acc 628829
C08	SBR1177112	ENSRNOT00000011994.3	Kcnd1	ENSRNOG0000039544	potassium voltage-gated channel subfamily D member 1 Source RGD Symbol Acc 621364
C09	SBR1099845	ENSRNOT00000019997.6	Kcnd3	ENSRNOG0000014686	potassium voltage-gated channel subfamily D member 3 Source RGD Symbol Acc 68394
C10	SBR1109504	ENSRNOT00000076362.1	Kcnh1	ENSRNOG0000003841	potassium voltage-gated channel subfamily H member 1 Source RGD Symbol Acc 68398
		ENSRNOT000000		ENSRNOG00	potassium voltage-gated channel subfamily H member 2 Source RGD Symbol

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1213952	013800.4	Kcnh2	000009872	Acc 621414
C12	SBR1171084	ENSRNOT00000086611.1	Kcnh3	ENSRNOG0000057315	potassium voltage-gated channel subfamily H member 3 Source RGD Symbol Acc 71070
D01	SBR1206210	ENSRNOT00000092779.1	Kcnh6	ENSRNOG0000008078	potassium voltage-gated channel subfamily H member 6 Source RGD Symbol Acc 620304
D02	SBR1112601	ENSRNOT00000085246.1	Kcnh7	ENSRNOG0000007528	potassium voltage-gated channel subfamily H member 7 Source RGD Symbol Acc 621112
D03	SBR1211231	ENSRNOT00000081614.1	Kcnj1	ENSRNOG0000059005	potassium voltage-gated channel subfamily J member 1 Source RGD Symbol Acc 2957
D04	SBR1129045	ENSRNOT00000028685.3	Kcnj11	ENSRNOG0000021128	potassium voltage-gated channel subfamily J member 11 Source RGD Symbol Acc 69247
D05	SBR1097635	ENSRNOT00000057953.2	Kcnj12	ENSRNOG0000002303	potassium voltage-gated channel subfamily J member 12 Source RGD Symbol Acc 621660
D06	SBR1120309	ENSRNOT00000021507.3	Kcnj13	ENSRNOG0000016057	potassium voltage-gated channel subfamily J member 13 Source RGD Symbol Acc 621661
D07	SBR1120992	ENSRNOT00000028591.6	Kcnj14	ENSRNOG0000021056	potassium voltage-gated channel subfamily J member 14 Source RGD Symbol Acc 628872
D08	SBR1153641	ENSRNOT00000002259.2	Kcnj15	ENSRNOG0000001656	potassium voltage-gated channel subfamily J member 15 Source RGD Symbol Acc 621662
D09	SBR1161329	ENSRNOT00000006238.4	Kcnj16	ENSRNOG0000004713	potassium voltage-gated channel subfamily J member 16 Source RGD Symbol Acc 61824
D10	SBR1176932	ENSRNOT00000006254.3	Kcnj2	ENSRNOG0000004720	potassium voltage-gated channel subfamily J member 2 Source RGD Symbol Acc 61968
D11	SBR1179268	ENSRNOT00000007335.4	Kcnj3	ENSRNOG0000005369	potassium voltage-gated channel subfamily J member 3 Source RGD Symbol Acc 2958
D12	SBR1152756	ENSRNOT00000018564.6	Kcnj4	ENSRNOG0000013869	potassium voltage-gated channel subfamily J member 4 Source RGD Symbol Acc 621436
E01	SBR1174337	ENSRNOT00000041038.5	Kcnj5	ENSRNOG0000033796	potassium voltage-gated channel subfamily J member 5 Source RGD Symbol Acc 61971
E02	SBR1203649	ENSRNOT00000066940.2	Kcnj6	ENSRNOG0000001658	potassium voltage-gated channel subfamily J member 6 Source RGD Symbol Acc 2959
E03	SBR1172628	ENSRNOT00000010113.4	Kcnj9	ENSRNOG0000007645	potassium voltage-gated channel subfamily J member 9 Source RGD Symbol Acc 621440
E04	SBR1119972	ENSRNOT00000088626.1	Kcnk1	ENSRNOG0000019937	potassium two pore domain channel subfamily K member 1 Source RGD Symbol Acc 621447
E05	SBR1163295	ENSRNOT00000077671.1	Kcnma1	ENSRNOG0000005985	potassium calcium-activated channel subfamily M alpha 1 Source RGD Symbol Acc 620715
E06	SBR1204823	ENSRNOT00000085579.1	Kcnmb4	ENSRNOG0000054458	potassium calcium-activated channel subfamily M regulatory beta subunit 4 Source RGD Symbol Acc 620728
E07	SBR1179334	ENSRNOT00000044291.3	Kcnn1	ENSRNOG0000029264	potassium calcium-activated channel subfamily N member 1 Source RGD Symbol Acc 2962
E08	SBR1175383	ENSRNOT00000022530.4	Kcnn2	ENSRNOG0000016675	potassium calcium-activated channel subfamily N member 2 Source RGD Symbol Acc 2963
E09	SBR1139507	ENSRNOT00000028117.5	Kcnn3	ENSRNOG0000020706	potassium calcium-activated channel subfamily N member 3 Source RGD Symbol Acc 2964
E10	SBR1215700	ENSRNOT00000075927.1	Kcnq1	ENSRNOG0000020532	potassium voltage-gated channel subfamily Q member 1 Source RGD Symbol Acc 621503
E11	SBR1167493	ENSRNOT00000049961.4	Kcnq2	ENSRNOG0000011624	potassium voltage-gated channel subfamily Q member 2 Source RGD Symbol Acc 621504
E12	SBR1152238	ENSRNOT00000074573.2	Kcnq3	ENSRNOG0000005206	potassium voltage-gated channel subfamily Q member 3 Source RGD Symbol Acc 69222
F01	SBR1159849	ENSRNOT00000018364.3	Kcns1	ENSRNOG0000013681	potassium voltage-gated channel, modifier subfamily S, member 1 Source RGD Symbol Acc 621524
F02	SBR1197347	ENSRNOT00000040306.6	Ryr3	ENSRNOG0000006645	ryanodine receptor 3 Source RGD Symbol Acc 68952
F03	SBR1098090	ENSRNOT00000046864.4	Scn10a	ENSRNOG0000032473	sodium voltage-gated channel alpha subunit 10 Source RGD Symbol Acc 3629
F04	SBR1124353	ENSRNOT00000034025.3	Scn11a	ENSRNOG0000032884	sodium voltage-gated channel alpha subunit 11 Source RGD Symbol Acc 3630
F05	SBR1158819	ENSRNOT00000091259.1	Scn1a	ENSRNOG0000053122	sodium voltage-gated channel alpha subunit 1 Source RGD Symbol Acc 69364
F06	SBR1128511	ENSRNOT00000028653.5	Scn1b	ENSRNOG0000021102	sodium voltage-gated channel beta subunit 1 Source RGD Symbol Acc 3631
F07	SBR1186835	ENSRNOT00000087242.1	Scn2a	ENSRNOG0000005018	sodium voltage-gated channel alpha subunit 2 Source RGD Symbol Acc 3632
F08	SBR1194302	ENSRNOT00000021819.3	Scn2b	ENSRNOG0000016221	sodium voltage-gated channel beta subunit 2 Source RGD Symbol Acc 3633
F09	SBR1179455	ENSRNOT00000081401.1	Scn3a	ENSRNOG0000005007	sodium voltage-gated channel alpha subunit 3 Source RGD Symbol Acc 3635
F10	SBR1197905	ENSRNOT00000080923.1	Scn8a	ENSRNOG0000005309	sodium voltage-gated channel alpha subunit 8 Source RGD Symbol Acc 3638

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1136164	ENSRNOT00000065126.3	Scn9a	ENSRNOG0000006639	sodium voltage-gated channel alpha subunit 9 Source RGD Symbol Acc 69368
F12	SBR1160148	ENSRNOT00000065184.4	Slc12a5	ENSRNOG0000018111	solute carrier family 12 member 5 Source RGD Symbol Acc 620811
G01	SBR1174352	ENSRNOT0000009874.2	Trpa1	ENSRNOG0000007354	transient receptor potential cation channel, subfamily A, member 1 Source RGD Symbol Acc 1303284
G02	SBR1145001	ENSRNOT00000079965.1	Trpc1	ENSRNOG0000054902	transient receptor potential cation channel, subfamily C, member 1 Source RGD Symbol Acc 619783
G03	SBR1111317	ENSRNOT00000080207.1	Trpc3	ENSRNOG0000016070	transient receptor potential cation channel, subfamily C, member 3 Source RGD Symbol Acc 61973
G04	SBR1178667	ENSRNOT00000008905.5	Trpc6	ENSRNOG0000006324	transient receptor potential cation channel, subfamily C, member 6 Source RGD Symbol Acc 619788
G05	SBR1102118	ENSRNOT00000021262.6	Trpm1	ENSRNOG0000015829	transient receptor potential cation channel, subfamily M, member 1 Source RGD Symbol Acc 1597140
G06	SBR1123688	ENSRNOT00000001631.5	Trpm2	ENSRNOG0000001216	transient receptor potential cation channel, subfamily M, member 2 Source RGD Symbol Acc 1311889
G07	SBR1093911	ENSRNOT00000017892.7	Trpm6	ENSRNOG0000013053	transient receptor potential cation channel, subfamily M, member 6 Source RGD Symbol Acc 1309942
G08	SBR1111231	ENSRNOT00000025879.4	Trpm8	ENSRNOG0000019035	transient receptor potential cation channel, subfamily M, member 8 Source RGD Symbol Acc 620762
G09	SBR1154501	ENSRNOT00000026456.6	Trpv1	ENSRNOG0000019486	transient receptor potential cation channel, subfamily V, member 1 Source RGD Symbol Acc 628841
G10	SBR1211694	ENSRNOT00000004248.6	Trpv2	ENSRNOG0000003104	transient receptor potential cation channel, subfamily V, member 2 Source RGD Symbol Acc 3965
G11	SBR1153657	ENSRNOT00000026596.3	Trpv3	ENSRNOG0000019606	transient receptor potential cation channel, subfamily V, member 3 Source RGD Symbol Acc 1564531
G12	SBR1112211	ENSRNOT00000001586.2	Trpv4	ENSRNOG0000001195	transient receptor potential cation channel, subfamily V, member 4 Source RGD Symbol Acc 69337
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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