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

Human Neuronal Ion Channels

Cat. no. 249950 SBHS-036ZR

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	ASIC2	ASIC1	ASIC3	BEST1	CACNA1A	CACNA1B	CACNA1C	CACNA1D	CACNA1G	CACNA1I	CACNB1	CACNB2
B	CACNB3	CACNG2	CACNG4	CLCN2	CLCN3	CLCN7	HCN1	HCN2	KCNA1	KCNA2	KCNA5	KCNA6
C	KCNAB1	KCNAB2	KCNAB3	KCNB1	KCNB2	KCNC1	KCNC2	KCND2	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	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	SBH0195492	ENST00000359872.6	ASIC2	ENSG00000108684	acid sensing ion channel subunit 2 Source HGNC Symbol Acc HGNC 99
A02	SBH0593685	ENST00000453327.7	ASIC1	ENSG00000110881	acid sensing ion channel subunit 1 Source HGNC Symbol Acc HGNC 100
A03	SBH0158104	ENST00000498105.1	ASIC3	ENSG00000213199	acid sensing ion channel subunit 3 Source HGNC Symbol Acc HGNC 101
A04	SBH0433914	ENST00000524926.5	BEST1	ENSG00000167995	bestrophin 1 Source HGNC Symbol Acc HGNC 12703
A05	SBH0115232	ENST00000360228.10	CACNA1A	ENSG00000141837	calcium voltage-gated channel subunit alpha1 A Source HGNC Symbol Acc HGNC 1388
A06	SBH0462302	ENST00000371363.5	CACNA1B	ENSG00000148408	calcium voltage-gated channel subunit alpha1 B Source HGNC Symbol Acc HGNC 1389
A07	SBH0050656	ENST00000399603.5	CACNA1C	ENSG00000151067	calcium voltage-gated channel subunit alpha1 C Source HGNC Symbol Acc HGNC 1390
A08	SBH0172308	ENST00000645528.1	CACNA1D	ENSG00000157388	calcium voltage-gated channel subunit alpha1 D Source HGNC Symbol Acc HGNC 1391
A09	SBH0038419	ENST00000502264.5	CACNA1G	ENSG00000006283	calcium voltage-gated channel subunit alpha1 G Source HGNC Symbol Acc HGNC 1394
A10	SBH0503479	ENST00000402142.3	CACNA1I	ENSG00000100346	calcium voltage-gated channel subunit alpha1 I Source HGNC Symbol Acc HGNC 1396
A11	SBH0218884	ENST00000344140.5	CACNB1	ENSG00000067191	calcium voltage-gated channel auxiliary subunit beta 1 Source HGNC Symbol Acc HGNC 1401
A12	SBH0173492	ENST00000396576.6	CACNB2	ENSG00000165995	calcium voltage-gated channel auxiliary subunit beta 2 Source HGNC Symbol Acc HGNC 1402
B01	SBH0375766	ENST00000552480.1	CACNB3	ENSG00000167535	calcium voltage-gated channel auxiliary subunit beta 3 Source HGNC Symbol Acc HGNC 1403
B02	SBH0126093	ENST00000300105.6	CACNG2	ENSG00000166862	calcium voltage-gated channel auxiliary subunit gamma 2 Source HGNC Symbol Acc HGNC 1406
B03	SBH0499791	ENST00000262138.4	CACNG4	ENSG00000075461	calcium voltage-gated channel auxiliary subunit gamma 4 Source HGNC Symbol Acc HGNC 1408
B04	SBH0115148	ENST00000638134.1	CLCN2	ENSG00000114859	chloride voltage-gated channel 2 Source HGNC Symbol Acc HGNC 2020
B05	SBH0002336	ENST00000515420.1	CLCN3	ENSG00000109572	chloride voltage-gated channel 3 Source HGNC Symbol Acc HGNC 2021
B06	SBH0033225	ENST00000569851.6	CLCN7	ENSG00000103249	chloride voltage-gated channel 7 Source HGNC Symbol Acc HGNC 2025
B07	SBH0607387	ENST00000303230.6	HCN1	ENSG00000164588	hyperpolarization activated cyclic nucleotide gated potassium channel 1 Source HGNC Symbol Acc HGNC 4845
B08	SBH0637749	ENST00000251287.3	HCN2	ENSG00000099822	hyperpolarization activated cyclic nucleotide gated potassium and sodium channel 2 Source HGNC Symbol Acc HGNC 4846
B09	SBH0647924	ENST00000543874.3	KCNA1	ENSG00000111262	potassium voltage-gated channel subfamily A member 1 Source HGNC Symbol Acc HGNC 6218
B10	SBH0053223	ENST00000639048.1	KCNA2	ENSG00000177301	potassium voltage-gated channel subfamily A member 2 Source HGNC Symbol Acc HGNC 6220
B11	SBH0199713	ENST00000252321.4	KCNA5	ENSG00000130037	potassium voltage-gated channel subfamily A member 5 Source HGNC Symbol Acc HGNC 6224
B12	SBH0285812	ENST00000280684.3	KCNA6	ENSG00000151079	potassium voltage-gated channel subfamily A member 6 Source HGNC Symbol Acc HGNC 6225
C01	SBH0591891	ENST00000472028.5	KCNAB1	ENSG00000169282	potassium voltage-gated channel subfamily A member regulatory beta subunit 1 Source HGNC Symbol Acc HGNC 6228
C02	SBH0152045	ENST00000352527.5	KCNAB2	ENSG00000069424	potassium voltage-gated channel subfamily A regulatory beta subunit 2 Source HGNC Symbol Acc HGNC 6229
C03	SBH0405884	ENST00000576981.1	KCNAB3	ENSG00000170049	potassium voltage-gated channel subfamily A regulatory beta subunit 3 Source HGNC Symbol Acc HGNC 6230
C04	SBH0144914	ENST00000635210.1	KCNB1	ENSG00000158445	potassium voltage-gated channel subfamily B member 1 Source HGNC Symbol Acc HGNC 6231
C05	SBH0391435	ENST00000523207.2	KCNB2	ENSG00000182674	potassium voltage-gated channel subfamily B member 2 Source HGNC Symbol Acc HGNC 6232
C06	SBH0455315	ENST00000640909.1	KCNC1	ENSG00000129159	potassium voltage-gated channel subfamily C member 1 Source HGNC Symbol Acc HGNC 6233
C07	SBH0061717	ENST00000549446.5	KCNC2	ENSG00000166006	potassium voltage-gated channel subfamily C member 2 Source HGNC Symbol Acc HGNC 6234
C08	SBH0241929	ENST00000331113.9	KCND2	ENSG00000184408	potassium voltage-gated channel subfamily D member 2 Source HGNC Symbol Acc HGNC 6238
C09	SBH0583919	ENST00000302127.4	KCND3	ENSG00000171385	potassium voltage-gated channel subfamily D member 3 Source HGNC Symbol Acc HGNC 6239
C10	SBH0281548	ENST00000640528.1	KCNH1	ENSG00000143473	potassium voltage-gated channel subfamily H member 1 Source HGNC Symbol Acc HGNC 6250
		ENST00000532		ENSG00000	potassium voltage-gated channel subfamily H member 2 Source HGNC Symbol

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0298798	957.5	KCNH2	055118	Acc HGNC 6251
C12	SBH0260215	ENST00000550 434.1	KCNH3	ENSG00000 135519	potassium voltage-gated channel subfamily H member 3 Source HGNC Symbol Acc HGNC 6252
D01	SBH0542970	ENST00000580 652.5	KCNH6	ENSG00000 173826	potassium voltage-gated channel subfamily H member 6 Source HGNC Symbol Acc HGNC 18862
D02	SBH0173637	ENST00000621 889.1	KCNH7	ENSG00000 184611	potassium voltage-gated channel subfamily H member 7 Source HGNC Symbol Acc HGNC 18863
D03	SBH0426843	ENST00000324 036.7	KCNJ1	ENSG00000 151704	potassium voltage-gated channel subfamily J member 1 Source HGNC Symbol Acc HGNC 6255
D04	SBH0071305	ENST00000526 912.1	KCNJ11	ENSG00000 187486	potassium voltage-gated channel subfamily J member 11 Source HGNC Symbol Acc HGNC 6257
D05	SBH0493841	ENST00000331 718.5	KCNJ12	ENSG00000 184185	potassium voltage-gated channel subfamily J member 12 Source HGNC Symbol Acc HGNC 6258
D06	SBH0460503	ENST00000444 142.1	KCNJ13	ENSG00000 115474	potassium voltage-gated channel subfamily J member 13 Source HGNC Symbol Acc HGNC 6259
D07	SBH0288537	ENST00000342 291.2	KCNJ14	ENSG00000 182324	potassium voltage-gated channel subfamily J member 14 Source HGNC Symbol Acc HGNC 6260
D08	SBH0300168	ENST00000549 158.5	KCNJ15	ENSG00000 157551	potassium voltage-gated channel subfamily J member 15 Source HGNC Symbol Acc HGNC 6261
D09	SBH0232161	ENST00000283 936.5	KCNJ16	ENSG00000 153822	potassium voltage-gated channel subfamily J member 16 Source HGNC Symbol Acc HGNC 6262
D10	SBH0289729	ENST00000243 457.3	KCNJ2	ENSG00000 123700	potassium voltage-gated channel subfamily J member 2 Source HGNC Symbol Acc HGNC 6263
D11	SBH0436632	ENST00000295 101.3	KCNJ3	ENSG00000 162989	potassium voltage-gated channel subfamily J member 3 Source HGNC Symbol Acc HGNC 6264
D12	SBH0233957	ENST00000303 592.3	KCNJ4	ENSG00000 168135	potassium voltage-gated channel subfamily J member 4 Source HGNC Symbol Acc HGNC 6265
E01	SBH0527114	ENST00000529 694.6	KCNJ5	ENSG00000 120457	potassium voltage-gated channel subfamily J member 5 Source HGNC Symbol Acc HGNC 6266
E02	SBH0559370	ENST00000645 093.1	KCNJ6	ENSG00000 157542	potassium voltage-gated channel subfamily J member 6 Source HGNC Symbol Acc HGNC 6267
E03	SBH0455170	ENST00000368 088.4	KCNJ9	ENSG00000 162728	potassium voltage-gated channel subfamily J member 9 Source HGNC Symbol Acc HGNC 6270
E04	SBH0509540	ENST00000366 621.7	KCNK1	ENSG00000 135750	potassium two pore domain channel subfamily K member 1 Source HGNC Symbol Acc HGNC 6272
E05	SBH0537480	ENST00000639 406.1	KCNMA1	ENSG00000 156113	potassium calcium-activated channel subfamily M alpha 1 Source HGNC Symbol Acc HGNC 6284
E06	SBH0177829	ENST00000258 111.5	KCNMB4	ENSG00000 135643	potassium calcium-activated channel subfamily M regulatory beta subunit 4 Source HGNC Symbol Acc HGNC 6289
E07	SBH0285758	ENST00000222 249.13	KCNN1	ENSG00000 105642	potassium calcium-activated channel subfamily N member 1 Source HGNC Symbol Acc HGNC 6290
E08	SBH0520070	ENST00000264 773.7	KCNN2	ENSG00000 080709	potassium calcium-activated channel subfamily N member 2 Source HGNC Symbol Acc HGNC 6291
E09	SBH0276680	ENST00000271 915.9	KCNN3	ENSG00000 143603	potassium calcium-activated channel subfamily N member 3 Source HGNC Symbol Acc HGNC 6292
E10	SBH0309668	ENST00000526 095.2	KCNQ1	ENSG00000 053918	potassium voltage-gated channel subfamily Q member 1 Source HGNC Symbol Acc HGNC 6294
E11	SBH0073761	ENST00000626 313.1	KCNQ2	ENSG00000 075043	potassium voltage-gated channel subfamily Q member 2 Source HGNC Symbol Acc HGNC 6296
E12	SBH0044290	ENST00000519 589.1	KCNQ3	ENSG00000 184156	potassium voltage-gated channel subfamily Q member 3 Source HGNC Symbol Acc HGNC 6297
F01	SBH0064746	ENST00000537 075.3	KCNS1	ENSG00000 124134	potassium voltage-gated channel modifier subfamily S member 1 Source HGNC Symbol Acc HGNC 6300
F02	SBH0459005	ENST00000635 749.1	RYR3	ENSG00000 198838	ryanodine receptor 3 Source HGNC Symbol Acc HGNC 10485
F03	SBH0083471	ENST00000643 108.1	SCN10A	ENSG00000 185313	sodium voltage-gated channel alpha subunit 10 Source HGNC Symbol Acc HGNC 10582
F04	SBH0055416	ENST00000302 328.7	SCN11A	ENSG00000 168356	sodium voltage-gated channel alpha subunit 11 Source HGNC Symbol Acc HGNC 10583
F05	SBH0184531	ENST00000641 575.1	SCN1A	ENSG00000 144285	sodium voltage-gated channel alpha subunit 1 Source HGNC Symbol Acc HGNC 10585
F06	SBH0308856	ENST00000595 652.5	SCN1B	ENSG00000 105711	sodium voltage-gated channel beta subunit 1 Source HGNC Symbol Acc HGNC 10586
F07	SBH0383623	ENST00000636 384.2	SCN2A	ENSG00000 136531	sodium voltage-gated channel alpha subunit 2 Source HGNC Symbol Acc HGNC 10588
F08	SBH0126163	ENST00000278 947.5	SCN2B	ENSG00000 149575	sodium voltage-gated channel beta subunit 2 Source HGNC Symbol Acc HGNC 10589
F09	SBH0556727	ENST00000360 093.7	SCN3A	ENSG00000 153253	sodium voltage-gated channel alpha subunit 3 Source HGNC Symbol Acc HGNC 10590
F10	SBH0564959	ENST00000354 534.10	SCN8A	ENSG00000 196876	sodium voltage-gated channel alpha subunit 8 Source HGNC Symbol Acc HGNC 10596

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0114011	ENST00000452182.2	SCN9A	ENSG00000169432	sodium voltage-gated channel alpha subunit 9 Source HGNC Symbol Acc HGNC 10597
F12	SBH0649756	ENST00000539566.3	SLC12A5	ENSG00000124140	solute carrier family 12 member 5 Source HGNC Symbol Acc HGNC 13818
G01	SBH0073624	ENST00000523582.5	TRPA1	ENSG00000104321	transient receptor potential cation channel subfamily A member 1 Source HGNC Symbol Acc HGNC 497
G02	SBH0570638	ENST00000273482.10	TRPC1	ENSG00000144935	transient receptor potential cation channel subfamily C member 1 Source HGNC Symbol Acc HGNC 12333
G03	SBH0185307	ENST00000264811.9	TRPC3	ENSG00000138741	transient receptor potential cation channel subfamily C member 3 Source HGNC Symbol Acc HGNC 12335
G04	SBH0311598	ENST00000532133.5	TRPC6	ENSG00000137672	transient receptor potential cation channel subfamily C member 6 Source HGNC Symbol Acc HGNC 12338
G05	SBH0156290	ENST00000558070.1	TRPM1	ENSG00000134160	transient receptor potential cation channel subfamily M member 1 Source HGNC Symbol Acc HGNC 7146
G06	SBH0416135	ENST00000490982.1	TRPM2	ENSG00000142185	transient receptor potential cation channel subfamily M member 2 Source HGNC Symbol Acc HGNC 12339
G07	SBH0120149	ENST00000360774.6	TRPM6	ENSG00000119121	transient receptor potential cation channel subfamily M member 6 Source HGNC Symbol Acc HGNC 17995
G08	SBH0427738	ENST00000456930.1	TRPM8	ENSG00000144481	transient receptor potential cation channel subfamily M member 8 Source HGNC Symbol Acc HGNC 17961
G09	SBH0364841	ENST00000571088.5	TRPV1	ENSG00000196689	transient receptor potential cation channel subfamily V member 1 Source HGNC Symbol Acc HGNC 12716
G10	SBH0500613	ENST00000338560.12	TRPV2	ENSG00000187688	transient receptor potential cation channel subfamily V member 2 Source HGNC Symbol Acc HGNC 18082
G11	SBH0020559	ENST00000616411.4	TRPV3	ENSG00000167723	transient receptor potential cation channel subfamily V member 3 Source HGNC Symbol Acc HGNC 18084
G12	SBH0120947	ENST00000418703.6	TRPV4	ENSG00000111199	transient receptor potential cation channel subfamily V member 4 Source HGNC Symbol Acc HGNC 18083
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 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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