

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

Rat Cellular Senescence

Cat. no. 249950 SBRN-050ZR

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	LOC100909750	Akt1	Aldh1a3	Atm	Bmi1	Calr	Ccna2	Ccnb1	Ccnd1	Ccne1	Cd44	Cdc25c
B	Cdk2	Cdk4	Cdk6	Cdkn1a	Cdkn1b	Cdkn1c	Cdkn2a	Cdkn2b	Cdkn2c	Nuak1	Stt3a	Chek2
C	Cited2	Col1a1	Col3a1	Creg1	E2f1	E2f3	Egr1	Ets1	Ets2	Fn1	Gadd45a	Glb1
D	Gsk3b	Hras	Id1	Ilfng	Igf1	Igf1r	Igf1bp3	Igf1bp5	Igf1bp7	Ing1	Irf3	Irf5
E	Irf7	Map2k1	Map2k3	Map2k6	Mapk14	Mdm2	Morc3	Myc	Nbn	NRb1	Nox4	Pcna
F	Plk3ca	Plau	Prkcd	Pten	Rb1	Rbl1	Rbl2	Serp1nb2	Serp1ne1	AABR07044925.1	Sod1	Sod2
G	Sporc	Tbx2	Tbx3	Terf2	Ter1	Tgfb1	Tgfb1i1	Thbs1	Tp53	Tp53bp1	Twist1	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	SBR1140753	ENSRNOT00000042495.5	LOC100909750	ENSRNOG0000047356	tyrosine-protein kinase ABL1-like Source RGD Symbol Acc 6502032
A02	SBR1163078	ENSRNOT00000031164.3	Akt1	ENSRNOG0000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A03	SBR1132733	ENSRNOT00000085158.1	Aldh1a3	ENSRNOG0000052070	aldehyde dehydrogenase 1 family, member A3 Source RGD Symbol Acc 628662
A04	SBR1113073	ENSRNOT00000050555.3	Atm	ENSRNOG0000029773	ATM serine/threonine kinase Source RGD Symbol Acc 1593265
A05	SBR1175404	ENSRNOT00000064257.2	Bmi1	ENSRNOG0000016585	BMI1 proto-oncogene, polycomb ring finger Source RGD Symbol Acc 1307403
A06	SBR1095160	ENSRNOT00000004091.6	Calr	ENSRNOG0000003029	calreticulin Source RGD Symbol Acc 620288
A07	SBR1106408	ENSRNOT00000021156.6	Ccna2	ENSRNOG0000015423	cyclin A2 Source RGD Symbol Acc 621059
A08	SBR1142548	ENSRNOT00000082846.1	Ccnb1	ENSRNOG0000058539	cyclin B1 Source RGD Symbol Acc 2291
A09	SBR1211432	ENSRNOT00000028411.3	Ccnd1	ENSRNOG0000020918	cyclin D1 Source RGD Symbol Acc 68384
A10	SBR1171340	ENSRNOT00000020014.4	Ccne1	ENSRNOG0000014786	cyclin E1 Source RGD Symbol Acc 2294
A11	SBR1148883	ENSRNOT00000009000.7	Cd44	ENSRNOG0000006094	CD44 molecule (Indian blood group) Source RGD Symbol Acc 2307
A12	SBR1194259	ENSRNOT00000037368.6	Cdc25c	ENSRNOG0000024008	cell division cycle 25C Source RGD Symbol Acc 1311875
B01	SBR1144473	ENSRNOT00000031963.3	Cdk2	ENSRNOG0000006469	cyclin dependent kinase 2 Source RGD Symbol Acc 70486
B02	SBR1175190	ENSRNOT00000031796.4	Cdk4	ENSRNOG0000025602	cyclin-dependent kinase 4 Source RGD Symbol Acc 621120
B03	SBR1193058	ENSRNOT00000012597.6	Cdk6	ENSRNOG0000009258	cyclin-dependent kinase 6 Source RGD Symbol Acc 621121
B04	SBR1145142	ENSRNOT00000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
B05	SBR1124365	ENSRNOT00000049848.1	Cdkn1b	ENSRNOG0000007249	cyclin-dependent kinase inhibitor 1B Source RGD Symbol Acc 69062
B06	SBR1184599	ENSRNOT00000078944.1	Cdkn1c	ENSRNOG0000059500	cyclin-dependent kinase inhibitor 1C Source RGD Symbol Acc 727892
B07	SBR1138605	ENSRNOT00000084293.1	Cdkn2a	ENSRNOG0000059837	cyclin-dependent kinase inhibitor 2A Source RGD Symbol Acc 2323
B08	SBR1182649	ENSRNOT00000092196.1	Cdkn2b	ENSRNOG0000006735	cyclin-dependent kinase inhibitor 2B Source RGD Symbol Acc 2324
B09	SBR1141755	ENSRNOT00000012088.7	Cdkn2c	ENSRNOG0000008956	cyclin-dependent kinase inhibitor 2C Source RGD Symbol Acc 2325
B10	SBR1142626	ENSRNOT00000010636.6	Nuak1	ENSRNOG0000008061	NUAK family kinase 1 Source RGD Symbol Acc 1309956
B11	SBR1115970	ENSRNOT00000043518.4	Stt3a	ENSRNOG0000031896	STT3A, catalytic subunit of the oligosaccharyltransferase complex Source RGD Symbol Acc 1565793
B12	SBR1132181	ENSRNOT00000085591.1	Chek2	ENSRNOG0000037509	checkpoint kinase 2 Source RGD Symbol Acc 621543
C01	SBR1094010	ENSRNOT00000086790.1	Cited2	ENSRNOG0000056940	Cbp/p300-interacting transactivator, with Glu/Asp-rich carboxy-terminal domain, 2 Source RGD Symbol Acc 620112
C02	SBR1113220	ENSRNOT00000005311.6	Col1a1	ENSRNOG0000003897	collagen type I alpha 1 chain Source RGD Symbol Acc 61817
C03	SBR1150486	ENSRNOT00000004956.4	Col3a1	ENSRNOG0000003357	collagen type III alpha 1 chain Source RGD Symbol Acc 71029
C04	SBR1115199	ENSRNOT00000004394.6	Creg1	ENSRNOG0000003291	cellular repressor of E1A-stimulated genes 1 Source RGD Symbol Acc 1306804
C05	SBR1191846	ENSRNOT00000022428.6	E2f1	ENSRNOG0000016708	N-terminal EF-hand calcium binding protein 3 Source RGD Symbol Acc 1310124
C06	SBR1164367	ENSRNOT00000050261.5	E2f3	ENSRNOG0000029273	E2F transcription factor 3 Source RGD Symbol Acc 1561600
C07	SBR1216566	ENSRNOT00000026303.4	Egr1	ENSRNOG0000019422	early growth response 1 Source RGD Symbol Acc 2544
C08	SBR1138162	ENSRNOT00000011925.4	Ets1	ENSRNOG0000008941	ETS proto-oncogene 1, transcription factor Source RGD Symbol Acc 2583
C09	SBR1209269	ENSRNOT00000002247.6	Ets2	ENSRNOG0000001647	ETS proto-oncogene 2, transcription factor Source RGD Symbol Acc 1584977
C10	SBR1178912	ENSRNOT00000019772.6	Fn1	ENSRNOG0000014288	fibronectin 1 Source RGD Symbol Acc 2624
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1179414	007698.6	Gadd45a	000005615	growth arrest and DNA-damage-inducible, alpha Source RGD Symbol Acc 2654
C12	SBR1174273	ENSRNOT00000013632.5	Glb1	ENSRNOG0000010196	galactosidase, beta 1 Source RGD Symbol Acc 1597145
D01	SBR1155736	ENSRNOT00000077612.1	Gsk3b	ENSRNOG0000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
D02	SBR1204952	ENSRNOT00000079464.1	Hras	ENSRNOG0000016611	HRas proto-oncogene, GTPase Source RGD Symbol Acc 2827
D03	SBR1135399	ENSRNOT00000029660.5	Id1	ENSRNOG00000021750	inhibitor of DNA binding 1, HLH protein Source RGD Symbol Acc 2858
D04	SBR1108917	ENSRNOT00000009919.2	Ifng	ENSRNOG0000007468	interferon gamma Source RGD Symbol Acc 2866
D05	SBR1185495	ENSRNOT00000038780.6	Igf1	ENSRNOG0000004517	insulin-like growth factor 1 Source RGD Symbol Acc 2868
D06	SBR1109208	ENSRNOT00000019267.6	Igf1r	ENSRNOG0000014187	insulin-like growth factor 1 receptor Source RGD Symbol Acc 2869
D07	SBR1152057	ENSRNOT00000088355.1	Igfbp3	ENSRNOG0000061910	insulin-like growth factor binding protein 3 Source RGD Symbol Acc 2874
D08	SBR1137301	ENSRNOT00000079493.1	Igfbp5	ENSRNOG0000017206	insulin-like growth factor binding protein 5 Source RGD Symbol Acc 2876
D09	SBR1131304	ENSRNOT00000002809.4	Igfbp7	ENSRNOG0000002050	insulin-like growth factor binding protein 7 Source RGD Symbol Acc 1306201
D10	SBR1134357	ENSRNOT00000019454.7	Ing1	ENSRNOG0000014520	inhibitor of growth family, member 1 Source RGD Symbol Acc 1306330
D11	SBR1201960	ENSRNOT00000027786.6	Irf3	ENSRNOG0000043388	interferon regulatory factor 3 Source RGD Symbol Acc 1549774
D12	SBR1126971	ENSRNOT00000010001.6	Irf5	ENSRNOG0000007437	interferon regulatory factor 5 Source RGD Symbol Acc 1310447
E01	SBR1141330	ENSRNOT00000023504.6	Irf7	ENSRNOG0000017414	interferon regulatory factor 7 Source RGD Symbol Acc 1307828
E02	SBR1111011	ENSRNOT00000013933.6	Map2k1	ENSRNOG0000010176	mitogen activated protein kinase kinase 1 Source RGD Symbol Acc 70495
E03	SBR1124771	ENSRNOT00000073792.2	Map2k3	ENSRNOG0000049132	mitogen activated protein kinase kinase 3 Source RGD Symbol Acc 1306620
E04	SBR1094365	ENSRNOT00000006217.6	Map2k6	ENSRNOG0000004437	mitogen-activated protein kinase kinase 6 Source RGD Symbol Acc 620666
E05	SBR1149566	ENSRNOT00000000618.6	Mapk14	ENSRNOG0000000513	mitogen activated protein kinase 14 Source RGD Symbol Acc 70496
E06	SBR1110929	ENSRNOT000000066767.2	Mdm2	ENSRNOG0000006304	MDM2 proto-oncogene Source RGD Symbol Acc 1305332
E07	SBR1141617	ENSRNOT00000076473.2	Morc3	ENSRNOG0000026236	MORC family CW-type zinc finger 3 Source RGD Symbol Acc 1307924
E08	SBR1106364	ENSRNOT00000006188.5	Myc	ENSRNOG0000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
E09	SBR1194336	ENSRNOT00000012377.4	Nbn	ENSRNOG0000008580	nibrin Source RGD Symbol Acc 621420
E10	SBR1111134	ENSRNOT00000036838.4	Nfkb1	ENSRNOG0000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
E11	SBR1109066	ENSRNOT00000018990.6	Nox4	ENSRNOG0000013925	NADPH oxidase 4 Source RGD Symbol Acc 620600
E12	SBR1212532	ENSRNOT00000028887.6	Pcna	ENSRNOG0000021264	proliferating cell nuclear antigen Source RGD Symbol Acc 3269
F01	SBR1193587	ENSRNOT000000083720.1	Pik3ca	ENSRNOG0000056371	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit alpha Source RGD Symbol Acc 620916
F02	SBR1186883	ENSRNOT00000014273.5	Plau	ENSRNOG0000010516	plasminogen activator, urokinase Source RGD Symbol Acc 3343
F03	SBR1205058	ENSRNOT00000025858.7	Prkcd	ENSRNOG0000016346	protein kinase C, delta Source RGD Symbol Acc 67383
F04	SBR1174124	ENSRNOT00000028143.3	Pten	ENSRNOG0000020723	phosphatase and tensin homolog Source RGD Symbol Acc 61995
F05	SBR1123205	ENSRNOT00000021752.5	Rb1	ENSRNOG0000016029	RB transcriptional corepressor 1 Source RGD Symbol Acc 3540
F06	SBR1198435	ENSRNOT000000064824.3	Rbl1	ENSRNOG0000006921	RB transcriptional corepressor like 1 Source RGD Symbol Acc 1595511
F07	SBR1176291	ENSRNOT00000017361.3	Rbl2	ENSRNOG0000012153	RB transcriptional corepressor like 2 Source RGD Symbol Acc 3541
F08	SBR1169254	ENSRNOT00000003409.5	Serpib2	ENSRNOG0000002460	serpin family B member 2 Source RGD Symbol Acc 621823
F09	SBR1126485	ENSRNOT00000001916.2	Serpine1	ENSRNOG0000001414	serpin family E member 1 Source RGD Symbol Acc 3249
F10	SBR1134550	ENSRNOT00000078739.1	AABR07044925.1	ENSRNOG0000051592	sirtuin 1 Source NCBI gene Acc 309757

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1136942	ENSRNOT0000002885.6	Sod1	ENSRNOG0000002115	superoxide dismutase 1 Source RGD Symbol Acc 3731
F12	SBR1204773	ENSRNOT00000025794.4	Sod2	ENSRNOG0000019048	superoxide dismutase 2 Source RGD Symbol Acc 3732
G01	SBR1136268	ENSRNOT00000017486.7	Sparc	ENSRNOG0000012840	secreted protein acidic and cysteine rich Source RGD Symbol Acc 3742
G02	SBR1194998	ENSRNOT00000004698.7	Tbx2	ENSRNOG0000003517	T-box 2 Source RGD Symbol Acc 1311014
G03	SBR1136237	ENSRNOT00000084018.1	Tbx3	ENSRNOG0000008706	T-box 3 Source RGD Symbol Acc 735203
G04	SBR1115491	ENSRNOT00000027695.6	Terf2	ENSRNOG0000020435	telomeric repeat binding factor 2 Source RGD Symbol Acc 1310881
G05	SBR1196369	ENSRNOT00000022683.4	Tert	ENSRNOG0000025327	telomerase reverse transcriptase Source RGD Symbol Acc 70494
G06	SBR1143485	ENSRNOT00000028051.4	Tgfb1	ENSRNOG0000020652	transforming growth factor, beta 1 Source RGD Symbol Acc 69051
G07	SBR1194847	ENSRNOT00000054980.3	Tgfb1i1	ENSRNOG0000019965	transforming growth factor beta 1 induced transcript 1 Source RGD Symbol Acc 620173
G08	SBR1160692	ENSRNOT00000083351.1	Thbs1	ENSRNOG0000045829	thrombospondin 1 Source RGD Symbol Acc 1588455
G09	SBR1172374	ENSRNOT00000046490.3	Tp53	ENSRNOG0000010756	tumor protein p53 Source RGD Symbol Acc 3889
G10	SBR1215660	ENSRNOT00000019025.8	Tp53bp1	ENSRNOG0000013837	tumor protein p53 binding protein 1 Source RGD Symbol Acc 1308039
G11	SBR1200999	ENSRNOT00000014763.6	Twist1	ENSRNOG0000011101	twist family bHLH transcription factor 1 Source RGD Symbol Acc 621455
G12	SBR1197523	ENSRNOT00000024430.5	Vim	ENSRNOG0000018087	vimentin Source RGD Symbol Acc 621646
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 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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