

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

Human Cellular Senescence

Cat. no. 249950 SBHS-050ZA

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	ABL1	AKT1	ALDH1A3	ATM	BMI1	CALR	CCNA2	CCNB1	CCND1	CCNE1	CD44	CDC25C
B	CDK2	CDK4	CDK6	CDKN1A	CDKN1B	CDKN1C	CDKN2A	CDKN2B	CDKN2C	CDKN2D	CHEK1	CHEK2
C	CITED2	COL1A1	COL3A1	CREG1	E2F1	E2F3	EGR1	ETS1	ETS2	FN1	GADD45A	GLB1
D	GSK3B	HRA5	ID1	IFNG	IGF1	IGF1R	IGFBP3	IGFBP5	IGFBP7	ING1	IRF3	IRF5
E	IRF7	MAP2K1	MAP2K3	MAP2K6	MAPK14	MDM2	MORC3	MYC	NBN	NFKB1	NOX4	PCNA
F	PIK3CA	PLAU	PRKCD	PTEN	RB1	RBL1	RBL2	SERPINB2	SERPINE1	SIRT1	SOD1	SOD2
G	SPARC	TBX2	TBX3	TERF2	TERT	TGFB1	TGFB11	THBS1	TP53	TP53BP1	TWIST1	VIM
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	SBH1219716	ENST00000372348.6	ABL1	ENSG00000097007	ABL proto-oncogene 1, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 76
A02	SBH0095396	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A03	SBH0001085	ENST00000558869.1	ALDH1A3	ENSG00000184254	aldehyde dehydrogenase 1 family member A3 Source HGNC Symbol Acc HGNC 409
A04	SBH1219763	ENST00000452508.6	ATM	ENSG00000149311	ATM serine/threonine kinase Source HGNC Symbol Acc HGNC 795
A05	SBH1219800	ENST00000376663.8	BMI1	ENSG00000168283	BMI1 proto-oncogene, polycomb ring finger Source HGNC Symbol Acc HGNC 1066
A06	SBH0031560	ENST00000316448.9	CALR	ENSG00000179218	calreticulin Source HGNC Symbol Acc HGNC 1455
A07	SBH0652713	ENST00000274026.10	CCNA2	ENSG00000145386	cyclin A2 Source HGNC Symbol Acc HGNC 1578
A08	SBH1219842	ENST00000256442.10	CCNB1	ENSG00000134057	cyclin B1 Source HGNC Symbol Acc HGNC 1579
A09	SBH0434090	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
A10	SBH1219846	ENST00000262643.8	CCNE1	ENSG00000105173	cyclin E1 Source HGNC Symbol Acc HGNC 1589
A11	SBH0074994	ENST00000428726.7	CD44	ENSG00000026508	CD44 molecule (Indian blood group) Source HGNC Symbol Acc HGNC 1681
A12	SBH1219866	ENST00000514017.1	CDC25C	ENSG00000158402	cell division cycle 25C Source HGNC Symbol Acc HGNC 1727
B01	SBH1219872	ENST00000553376.5	CDK2	ENSG00000123374	cyclin dependent kinase 2 Source HGNC Symbol Acc HGNC 1771
B02	SBH1219873	ENST00000547281.5	CDK4	ENSG00000135446	cyclin dependent kinase 4 Source HGNC Symbol Acc HGNC 1773
B03	SBH1219876	ENST00000424848.2	CDK6	ENSG00000105810	cyclin dependent kinase 6 Source HGNC Symbol Acc HGNC 1777
B04	SBH0608500	ENST00000244741.9	CDKN1A	ENSG00000124762	cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784
B05	SBH1219879	ENST00000442489.1	CDKN1B	ENSG00000111276	cyclin dependent kinase inhibitor 1B Source HGNC Symbol Acc HGNC 1785
B06	SBH0517353	ENST00000440480.7	CDKN1C	ENSG00000129757	cyclin dependent kinase inhibitor 1C Source HGNC Symbol Acc HGNC 1786
B07	SBH0349548	ENST00000304494.9	CDKN2A	ENSG00000147889	cyclin dependent kinase inhibitor 2A Source HGNC Symbol Acc HGNC 1787
B08	SBH1219880	ENST00000276925.7	CDKN2B	ENSG00000147883	cyclin dependent kinase inhibitor 2B Source HGNC Symbol Acc HGNC 1788
B09	SBH0381070	ENST00000371761.4	CDKN2C	ENSG00000123080	cyclin dependent kinase inhibitor 2C Source HGNC Symbol Acc HGNC 1789
B10	SBH0283440	ENST00000393599.2	CDKN2D	ENSG00000129355	cyclin dependent kinase inhibitor 2D Source HGNC Symbol Acc HGNC 1790
B11	SBH1219885	ENST00000534070.5	CHEK1	ENSG00000149554	checkpoint kinase 1 Source HGNC Symbol Acc HGNC 1925
B12	SBH0661120	ENST00000416671.5	CHEK2	ENSG00000183765	checkpoint kinase 2 Source HGNC Symbol Acc HGNC 16627
C01	SBH0580180	ENST00000367651.4	CITED2	ENSG00000164442	Cbp/p300 interacting transactivator with Glu/Asp rich carboxy-terminal domain 2 Source HGNC Symbol Acc HGNC 1987
C02	SBH0268763	ENST00000225964.9	COL1A1	ENSG00000108821	collagen type I alpha 1 chain Source HGNC Symbol Acc HGNC 2197
C03	SBH0521348	ENST00000304636.7	COL3A1	ENSG00000168542	collagen type III alpha 1 chain Source HGNC Symbol Acc HGNC 2201
C04	SBH0244186	ENST00000370509.5	CREG1	ENSG00000143162	cellular repressor of E1A stimulated genes 1 Source HGNC Symbol Acc HGNC 2351
C05	SBH1219965	ENST00000343380.6	E2F1	ENSG00000101412	E2F transcription factor 1 Source HGNC Symbol Acc HGNC 3113
C06	SBH0417454	ENST00000535432.2	E2F3	ENSG00000112242	E2F transcription factor 3 Source HGNC Symbol Acc HGNC 3115
C07	SBH0290504	ENST00000239938.5	EGR1	ENSG00000120738	early growth response 1 Source HGNC Symbol Acc HGNC 3238
C08	SBH0541614	ENST00000526145.6	ETS1	ENSG00000134954	ETS proto-oncogene 1, transcription factor Source HGNC Symbol Acc HGNC 3488
C09	SBH1219986	ENST00000432278.5	ETS2	ENSG00000157557	ETS proto-oncogene 2, transcription factor Source HGNC Symbol Acc HGNC 3489
C10	SBH1220003	ENST00000354785.9	FN1	ENSG00000115414	fibronectin 1 Source HGNC Symbol Acc HGNC 3778
		ENST00000370		ENSG000000	growth arrest and DNA damage inducible alpha Source HGNC Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH1220019	985.4	GADD45A	116717	HGNC 4095
C12	SBH0161579	ENST00000399402.7	GLB1	ENSG00000170266	galactosidase beta 1 Source HGNC Symbol Acc HGNC 4298
D01	SBH0579883	ENST00000316626.5	GSK3B	ENSG00000082701	glycogen synthase kinase 3 beta Source HGNC Symbol Acc HGNC 4617
D02	SBH0257285	ENST00000493230.5	HRAS	ENSG00000174775	HRas proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 5173
D03	SBH1220077	ENST00000376112.4	ID1	ENSG00000125968	inhibitor of DNA binding 1, HLH protein Source HGNC Symbol Acc HGNC 5360
D04	SBH1220090	ENST00000229135.4	IFNG	ENSG00000111537	interferon gamma Source HGNC Symbol Acc HGNC 5438
D05	SBH1220091	ENST00000337514.10	IGF1	ENSG00000017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
D06	SBH0201042	ENST00000650285.1	IGF1R	ENSG00000140443	insulin like growth factor 1 receptor Source HGNC Symbol Acc HGNC 5465
D07	SBH1220092	ENST00000275521.10	IGFBP3	ENSG00000146674	insulin like growth factor binding protein 3 Source HGNC Symbol Acc HGNC 5472
D08	SBH1220094	ENST00000233813.5	IGFBP5	ENSG00000115461	insulin like growth factor binding protein 5 Source HGNC Symbol Acc HGNC 5474
D09	SBH0069319	ENST00000295666.6	IGFBP7	ENSG00000163453	insulin like growth factor binding protein 7 Source HGNC Symbol Acc HGNC 5476
D10	SBH0085271	ENST00000333219.8	ING1	ENSG00000153487	inhibitor of growth family member 1 Source HGNC Symbol Acc HGNC 6062
D11	SBH1220124	ENST00000601809.5	IRF3	ENSG00000126456	interferon regulatory factor 3 Source HGNC Symbol Acc HGNC 6118
D12	SBH1220125	ENST00000357234.10	IRF5	ENSG00000128604	interferon regulatory factor 5 Source HGNC Symbol Acc HGNC 6120
E01	SBH0251148	ENST00000397574.7	IRF7	ENSG00000185507	interferon regulatory factor 7 Source HGNC Symbol Acc HGNC 6122
E02	SBH0671782	ENST00000307102.9	MAP2K1	ENSG00000169032	mitogen-activated protein kinase kinase 1 Source HGNC Symbol Acc HGNC 6840
E03	SBH1220188	ENST00000613338.4	MAP2K3	ENSG00000034152	mitogen-activated protein kinase kinase 3 Source HGNC Symbol Acc HGNC 6843
E04	SBH1218288	ENST00000588110.5	MAP2K6	ENSG00000108984	mitogen-activated protein kinase kinase 6 Source HGNC Symbol Acc HGNC 6846
E05	SBH0102441	ENST00000229795.7	MAPK14	ENSG00000112062	mitogen-activated protein kinase 14 Source HGNC Symbol Acc HGNC 6876
E06	SBH1220207	ENST00000523991.5	MDM2	ENSG00000135679	MDM2 proto-oncogene Source HGNC Symbol Acc HGNC 6973
E07	SBH0266454	ENST00000552581.5	MORC3	ENSG00000159256	MORC family CW-type zinc finger 3 Source HGNC Symbol Acc HGNC 23572
E08	SBH0426145	ENST00000524013.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
E09	SBH0220644	ENST00000265433.7	NBN	ENSG00000104320	nibrin Source HGNC Symbol Acc HGNC 7652
E10	SBH1220264	ENST00000651197.1	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
E11	SBH1220274	ENST00000525196.5	NOX4	ENSG00000086991	NADPH oxidase 4 Source HGNC Symbol Acc HGNC 7891
E12	SBH0251688	ENST00000379160.3	PCNA	ENSG00000132646	proliferating cell nuclear antigen Source HGNC Symbol Acc HGNC 8729
F01	SBH0121428	ENST00000462255.1	PIK3CA	ENSG00000121879	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha Source HGNC Symbol Acc HGNC 8975
F02	SBH1220315	ENST00000446342.5	PLAU	ENSG00000122861	plasminogen activator, urokinase Source HGNC Symbol Acc HGNC 9052
F03	SBH0285878	ENST00000652449.1	PRKCD	ENSG00000163932	protein kinase C delta Source HGNC Symbol Acc HGNC 9399
F04	SBH1225378	ENST00000371953.8	PTEN	ENSG00000171862	phosphatase and tensin homolog Source HGNC Symbol Acc HGNC 9588
F05	SBH0093533	ENST00000267163.5	RB1	ENSG00000139687	RB transcriptional corepressor 1 Source HGNC Symbol Acc HGNC 9884
F06	SBH1220360	ENST00000344359.7	RBL1	ENSG00000080839	RB transcriptional corepressor like 1 Source HGNC Symbol Acc HGNC 9893
F07	SBH1220361	ENST00000262133.11	RBL2	ENSG00000103479	RB transcriptional corepressor like 2 Source HGNC Symbol Acc HGNC 9894
F08	SBH1220388	ENST00000404622.5	SERPINB2	ENSG00000197632	serpin family B member 2 Source HGNC Symbol Acc HGNC 8584
F09	SBH1220389	ENST00000223095.4	SERPINE1	ENSG00000106366	serpin family E member 1 Source HGNC Symbol Acc HGNC 8583
F10	SBH1220398	ENST00000212015.11	SIRT1	ENSG00000096717	sirtuin 1 Source HGNC Symbol Acc HGNC 14929

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0278498	ENST00000270142.10	SOD1	ENSG00000142168	superoxide dismutase 1 Source HGNC Symbol Acc HGNC 11179
F12	SBH1220414	ENST00000535561.5	SOD2	ENSG00000112096	superoxide dismutase 2 Source HGNC Symbol Acc HGNC 11180
G01	SBH1220420	ENST00000521569.1	SPARC	ENSG00000113140	secreted protein acidic and cysteine rich Source HGNC Symbol Acc HGNC 11219
G02	SBH1220434	ENST00000240328.4	TBX2	ENSG00000121068	T-box 2 Source HGNC Symbol Acc HGNC 11597
G03	SBH0075281	ENST00000257566.7	TBX3	ENSG00000135111	T-box 3 Source HGNC Symbol Acc HGNC 11602
G04	SBH0165409	ENST00000567296.6	TERF2	ENSG00000132604	telomeric repeat binding factor 2 Source HGNC Symbol Acc HGNC 11729
G05	SBH0606096	ENST00000334602.10	TERT	ENSG00000164362	telomerase reverse transcriptase Source HGNC Symbol Acc HGNC 11730
G06	SBH1220443	ENST00000598758.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G07	SBH0021613	ENST00000394863.8	TGFB111	ENSG00000140682	transforming growth factor beta 1 induced transcript 1 Source HGNC Symbol Acc HGNC 11767
G08	SBH1220450	ENST00000260356.5	THBS1	ENSG00000137801	thrombospondin 1 Source HGNC Symbol Acc HGNC 11785
G09	SBH1220486	ENST00000445888.6	TP53	ENSG00000141510	tumor protein p53 Source HGNC Symbol Acc HGNC 11998
G10	SBH0344481	ENST00000263801.7	TP53BP1	ENSG00000067369	tumor protein p53 binding protein 1 Source HGNC Symbol Acc HGNC 11999
G11	SBH1220496	ENST00000242261.6	TWIST1	ENSG00000122691	twist family bHLH transcription factor 1 Source HGNC Symbol Acc HGNC 12428
G12	SBH1220518	ENST00000544301.7	VIM	ENSG00000026025	vimentin Source HGNC Symbol Acc HGNC 12692
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 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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