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

Human VEGF Signaling

Cat. no. 249950 SBHS-091ZA

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	AKT1	AKT2	AKT3	ARNT	BAD	CASP9	CAV1	CDC42	VEGFD	FLT1	FLT4	GRB2
B	HIF1A	HRAS	HSP90AA1	HSPB1	KDR	KRAS	MAP2K1	MAP2K2	MAPK1	MAPK11	MAPK12	MAPK13
C	MAPK14	MAPK3	MAPKAPK2	MAPKAPK3	NFAT5	NFATC1	NFATC2	NFATC3	NFATC4	NOS3	NRAS	NRP1
D	NRP2	PDGFC	PGF	PIK3CA	PIK3CB	PIK3CD	PIK3CG	PIK3R1	PIK3R2	PIK3R3	PIK3R5	PLA2G10
E	PLA2G12A	PLA2G12B	PLA2G1B	PLA2G2A	PLA2G2D	PLA2G2E	PLA2G2F	PLA2G3	PLA2G4A	PLA2G4B	PLA2G5	PLA2G6
F	PLCG1	PLCG2	PPP3CA	PPP3CB	PPP3CC	PPP3R1	PPP3R2	PRKCA	PRKCB	PRKCG	PTGS2	PTK2
G	PXN	RAC1	RAC2	RAF1	SH2D2A	SHC2	SPHK1	SPHK2	SRC	VEGFA	VEGFB	VEGFC
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	SBH0095396	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A02	SBH0364428	ENST00000492463.6	AKT2	ENSG00000105221	AKT serine/threonine kinase 2 Source HGNC Symbol Acc HGNC 392
A03	SBH0031667	ENST00000463991.5	AKT3	ENSG00000117020	AKT serine/threonine kinase 3 Source HGNC Symbol Acc HGNC 393
A04	SBH1219751	ENST00000358595.10	ARNT	ENSG00000143437	aryl hydrocarbon receptor nuclear translocator Source HGNC Symbol Acc HGNC 700
A05	SBH0034205	ENST00000394532.7	BAD	ENSG00000002330	BCL2 associated agonist of cell death Source HGNC Symbol Acc HGNC 936
A06	SBH1219828	ENST00000333868.10	CASP9	ENSG00000132906	caspase 9 Source HGNC Symbol Acc HGNC 1511
A07	SBH0105254	ENST00000451122.5	CAV1	ENSG00000105974	caveolin 1 Source HGNC Symbol Acc HGNC 1527
A08	SBH0651826	ENST00000651171.1	CDC42	ENSG00000070831	cell division cycle 42 Source HGNC Symbol Acc HGNC 1736
A09	SBH1220001	ENST00000297904.4	VEGFD	ENSG00000165197	vascular endothelial growth factor D Source HGNC Symbol Acc HGNC 3708
A10	SBH1220002	ENST00000282397.9	FLT1	ENSG00000102755	fms related tyrosine kinase 1 Source HGNC Symbol Acc HGNC 3763
A11	SBH0243959	ENST00000512795.1	FLT4	ENSG00000037280	fms related tyrosine kinase 4 Source HGNC Symbol Acc HGNC 3767
A12	SBH1220038	ENST00000392563.5	GRB2	ENSG00000177885	growth factor receptor bound protein 2 Source HGNC Symbol Acc HGNC 4566
B01	SBH1220060	ENST00000323441.10	HIF1A	ENSG00000100644	hypoxia inducible factor 1 subunit alpha Source HGNC Symbol Acc HGNC 4910
B02	SBH0257285	ENST00000493230.5	HRAS	ENSG00000174775	HRas proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 5173
B03	SBH0323386	ENST00000334701.11	HSP90AA1	ENSG00000080824	heat shock protein 90 alpha family class A member 1 Source HGNC Symbol Acc HGNC 5253
B04	SBH0474094	ENST00000429938.1	HSPB1	ENSG00000106211	heat shock protein family B (small) member 1 Source HGNC Symbol Acc HGNC 5246
B05	SBH0020198	ENST00000263923.5	KDR	ENSG00000128052	kinase insert domain receptor Source HGNC Symbol Acc HGNC 6307
B06	SBH0300474	ENST00000556131.1	KRAS	ENSG00000133703	KRAS proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 6407
B07	SBH0671782	ENST00000307102.9	MAP2K1	ENSG00000169032	mitogen-activated protein kinase kinase 1 Source HGNC Symbol Acc HGNC 6840
B08	SBH0516649	ENST00000394867.8	MAP2K2	ENSG00000126934	mitogen-activated protein kinase kinase 2 Source HGNC Symbol Acc HGNC 6842
B09	SBH1220192	ENST00000544786.1	MAPK1	ENSG00000100030	mitogen-activated protein kinase 1 Source HGNC Symbol Acc HGNC 6871
B10	SBH0344387	ENST00000330651.11	MAPK11	ENSG00000185386	mitogen-activated protein kinase 11 Source HGNC Symbol Acc HGNC 6873
B11	SBH1220193	ENST00000395780.5	MAPK12	ENSG00000188130	mitogen-activated protein kinase 12 Source HGNC Symbol Acc HGNC 6874
B12	SBH0068887	ENST00000211287.9	MAPK13	ENSG00000156711	mitogen-activated protein kinase 13 Source HGNC Symbol Acc HGNC 6875
C01	SBH0102441	ENST00000229795.7	MAPK14	ENSG00000112062	mitogen-activated protein kinase 14 Source HGNC Symbol Acc HGNC 6876
C02	SBH1220194	ENST00000478356.5	MAPK3	ENSG00000102882	mitogen-activated protein kinase 3 Source HGNC Symbol Acc HGNC 6877
C03	SBH0433514	ENST00000367103.3	MAPKAPK2	ENSG00000162889	mitogen-activated protein kinase-activated protein kinase 2 Source HGNC Symbol Acc HGNC 6887
C04	SBH0551979	ENST00000621469.5	MAPKAPK3	ENSG00000114738	mitogen-activated protein kinase-activated protein kinase 3 Source HGNC Symbol Acc HGNC 6888
C05	SBH1220263	ENST00000354436.6	NFAT5	ENSG00000102908	nuclear factor of activated T cells 5 Source HGNC Symbol Acc HGNC 7774
C06	SBH0171265	ENST00000591814.5	NFATC1	ENSG00000131196	nuclear factor of activated T cells 1 Source HGNC Symbol Acc HGNC 7775
C07	SBH0361870	ENST00000609943.5	NFATC2	ENSG00000101096	nuclear factor of activated T cells 2 Source HGNC Symbol Acc HGNC 7776
C08	SBH0604923	ENST00000562171.1	NFATC3	ENSG00000072736	nuclear factor of activated T cells 3 Source HGNC Symbol Acc HGNC 7777
C09	SBH0453720	ENST00000557451.5	NFATC4	ENSG00000100968	nuclear factor of activated T cells 4 Source HGNC Symbol Acc HGNC 7778
C10	SBH1220272	ENST00000297494.8	NOS3	ENSG00000164867	nitric oxide synthase 3 Source HGNC Symbol Acc HGNC 7876
		ENST00000369		ENSG00000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0148098	535.5	NRAS	213281	NRAS proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 7989
C12	SBH1220281	ENST00000374823.9	NRP1	ENSG00000099250	neuropilin 1 Source HGNC Symbol Acc HGNC 8004
D01	SBH0541562	ENST00000357785.9	NRP2	ENSG00000118257	neuropilin 2 Source HGNC Symbol Acc HGNC 8005
D02	SBH0518114	ENST00000506880.5	PDGFC	ENSG00000145431	platelet derived growth factor C Source HGNC Symbol Acc HGNC 8801
D03	SBH1220303	ENST00000238607.10	PGF	ENSG00000119630	placental growth factor Source HGNC Symbol Acc HGNC 8893
D04	SBH0121428	ENST00000462255.1	PIK3CA	ENSG00000121879	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha Source HGNC Symbol Acc HGNC 8975
D05	SBH0158849	ENST00000477593.5	PIK3CB	ENSG00000051382	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit beta Source HGNC Symbol Acc HGNC 8976
D06	SBH0495005	ENST00000536656.5	PIK3CD	ENSG00000171608	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit delta Source HGNC Symbol Acc HGNC 8977
D07	SBH1220313	ENST00000496166.6	PIK3CG	ENSG00000105851	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma Source HGNC Symbol Acc HGNC 8978
D08	SBH0560623	ENST00000518813.5	PIK3R1	ENSG00000145675	phosphoinositide-3-kinase regulatory subunit 1 Source HGNC Symbol Acc HGNC 8979
D09	SBH0626073	ENST00000617130.4	PIK3R2	ENSG00000105647	phosphoinositide-3-kinase regulatory subunit 2 Source HGNC Symbol Acc HGNC 8980
D10	SBH0170264	ENST00000425892.2	PIK3R3	ENSG00000117461	phosphoinositide-3-kinase regulatory subunit 3 Source HGNC Symbol Acc HGNC 8981
D11	SBH0430751	ENST00000616147.4	PIK3R5	ENSG00000141506	phosphoinositide-3-kinase regulatory subunit 5 Source HGNC Symbol Acc HGNC 30035
D12	SBH1218225	ENST00000438167.7	PLA2G10	ENSG00000069764	phospholipase A2 group X Source HGNC Symbol Acc HGNC 9029
E01	SBH0169953	ENST00000502772.1	PLA2G12A	ENSG00000123739	phospholipase A2 group XIIA Source HGNC Symbol Acc HGNC 18554
E02	SBH0225012	ENST00000373032.3	PLA2G12B	ENSG00000138308	phospholipase A2 group XIIB Source HGNC Symbol Acc HGNC 18555
E03	SBH0113434	ENST00000423423.3	PLA2G1B	ENSG00000170890	phospholipase A2 group IB Source HGNC Symbol Acc HGNC 9030
E04	SBH0155727	ENST00000400520.7	PLA2G2A	ENSG00000188257	phospholipase A2 group IIA Source HGNC Symbol Acc HGNC 9031
E05	SBH0660881	ENST00000617227.1	PLA2G2D	ENSG00000117215	phospholipase A2 group IID Source HGNC Symbol Acc HGNC 9033
E06	SBH0173096	ENST00000375116.3	PLA2G2E	ENSG00000188784	phospholipase A2 group IIE Source HGNC Symbol Acc HGNC 13414
E07	SBH0643352	ENST00000375102.3	PLA2G2F	ENSG00000158786	phospholipase A2 group IIF Source HGNC Symbol Acc HGNC 30040
E08	SBH0273690	ENST00000215885.4	PLA2G3	ENSG00000100078	phospholipase A2 group III Source HGNC Symbol Acc HGNC 17934
E09	SBH0564600	ENST00000466600.1	PLA2G4A	ENSG00000116711	phospholipase A2 group IVA Source HGNC Symbol Acc HGNC 9035
E10	SBH0527877	ENST00000461382.5	PLA2G4B	ENSG00000243708	phospholipase A2 group IVB Source HGNC Symbol Acc HGNC 9036
E11	SBH0356964	ENST00000489871.5	PLA2G5	ENSG00000127472	phospholipase A2 group V Source HGNC Symbol Acc HGNC 9038
E12	SBH0288168	ENST00000471636.5	PLA2G6	ENSG00000184381	phospholipase A2 group VI Source HGNC Symbol Acc HGNC 9039
F01	SBH0415853	ENST00000608689.5	PLCG1	ENSG00000124181	phospholipase C gamma 1 Source HGNC Symbol Acc HGNC 9065
F02	SBH0377372	ENST00000569929.5	PLCG2	ENSG00000197943	phospholipase C gamma 2 Source HGNC Symbol Acc HGNC 9066
F03	SBH0472618	ENST00000394854.8	PPP3CA	ENSG00000138814	protein phosphatase 3 catalytic subunit alpha Source HGNC Symbol Acc HGNC 9314
F04	SBH0266531	ENST00000394828.6	PPP3CB	ENSG00000107758	protein phosphatase 3 catalytic subunit beta Source HGNC Symbol Acc HGNC 9315
F05	SBH0103929	ENST00000521651.5	PPP3CC	ENSG00000120910	protein phosphatase 3 catalytic subunit gamma Source HGNC Symbol Acc HGNC 9316
F06	SBH0465667	ENST00000234310.8	PPP3R1	ENSG00000221823	protein phosphatase 3 regulatory subunit B, alpha Source HGNC Symbol Acc HGNC 9317
F07	SBH0591745	ENST00000374806.2	PPP3R2	ENSG00000188386	protein phosphatase 3 regulatory subunit B, beta Source HGNC Symbol Acc HGNC 9318
F08	SBH0105563	ENST00000578063.5	PRKCA	ENSG00000154229	protein kinase C alpha Source HGNC Symbol Acc HGNC 9393
F09	SBH0521170	ENST00000472066.1	PRKCB	ENSG00000166501	protein kinase C beta Source HGNC Symbol Acc HGNC 9395
F10	SBH0670634	ENST00000419486.1	PRKCG	ENSG00000126583	protein kinase C gamma Source HGNC Symbol Acc HGNC 9402

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220344	ENST00000367468.10	PTGS2	ENSG00000073756	prostaglandin-endoperoxide synthase 2 Source HGNC Symbol Acc HGNC 9605
F12	SBH1220345	ENST00000523539.5	PTK2	ENSG00000169398	protein tyrosine kinase 2 Source HGNC Symbol Acc HGNC 9611
G01	SBH0004826	ENST00000552550.5	PXN	ENSG00000089159	paxillin Source HGNC Symbol Acc HGNC 9718
G02	SBH1220352	ENST00000356142.4	RAC1	ENSG00000136238	Rac family small GTPase 1 Source HGNC Symbol Acc HGNC 9801
G03	SBH0241764	ENST00000249071.11	RAC2	ENSG00000128340	Rac family small GTPase 2 Source HGNC Symbol Acc HGNC 9802
G04	SBH0573752	ENST00000416093.1	RAF1	ENSG00000132155	Raf-1 proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 9829
G05	SBH0428066	ENST00000368198.7	SH2D2A	ENSG00000027869	SH2 domain containing 2A Source HGNC Symbol Acc HGNC 10821
G06	SBH0657203	ENST00000590222.5	SHC2	ENSG00000129946	SHC adaptor protein 2 Source HGNC Symbol Acc HGNC 29869
G07	SBH1220421	ENST00000545180.5	SPHK1	ENSG00000176170	sphingosine kinase 1 Source NCBI gene Acc 8877
G08	SBH0272438	ENST00000340932.7	SPHK2	ENSG00000063176	sphingosine kinase 2 Source HGNC Symbol Acc HGNC 18859
G09	SBH0514958	ENST00000489153.1	SRC	ENSG00000197122	SRC proto-oncogene, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11283
G10	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
G11	SBH0589017	ENST00000309422.6	VEGFB	ENSG00000173511	vascular endothelial growth factor B Source HGNC Symbol Acc HGNC 12681
G12	SBH1220517	ENST00000618562.2	VEGFC	ENSG00000150630	vascular endothelial growth factor C Source HGNC Symbol Acc HGNC 12682
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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