

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

## Human Cell Motility

Cat. no. 249950 SBHS-128ZA

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](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	ACTN1	ACTN3	ACTN4	ACTR2	ACTR3	AKT1	ARF6	ARHGDI3	ARHGEF7	BAIAP2	BCAR1	CAPN1
B	CAPN2	CAV1	CDC42	CFL1	CRK	CSF1	CTTN	DIAPH1	DPP4	EGF	EGFR	ENAH
C	EZR	FAP	FGF2	HGF	IGF1	IGF1R	ILK	ITGA4	ITGB1	ITGB2	ITGB3	LIMK1
D	MAPK1	MET	MMP14	MMP2	MMP9	MSN	MYH10	MYH9	MYL9	MYLK	PAK1	PAK4
E	PFN1	PIK3CA	PLAUR	PLCG1	PLD1	PRKCA	PTEN	PTK2	PTK2B	PTPN1	PXN	RAC1
F	RAC2	RASA1	RDX	RHO	RHOA	RHOB	RHOC	RND3	ROCK1	SH3PXD2A	SRC	STAT3
G	SVIL	TGFB1	TIMP2	TLN1	VASP	VCL	VEGFA	VIM	WASF1	WASF2	WASL	WIPF1
H	ACTB	B2M	GAPDH	HRPT1	RPLP0	HGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBH0484630	ENST00000556571.1	ACTN1	ENSG00000072110	actinin alpha 1 Source HGNC Symbol Acc HGNC 163
A02	SBH0252637	ENST00000502692.5	ACTN3	ENSG00000248746	actinin alpha 3 (gene/pseudogene) Source HGNC Symbol Acc HGNC 165
A03	SBH0569283	ENST00000495553.1	ACTN4	ENSG00000130402	actinin alpha 4 Source HGNC Symbol Acc HGNC 166
A04	SBH0158088	ENST00000542850.2	ACTR2	ENSG00000138071	ARP2 actin related protein 2 homolog Source HGNC Symbol Acc HGNC 169
A05	SBH0412358	ENST00000415792.5	ACTR3	ENSG00000115091	ARP3 actin related protein 3 homolog Source HGNC Symbol Acc HGNC 170
A06	SBH0095396	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A07	SBH0524514	ENST00000298316.7	ARF6	ENSG00000165527	ADP ribosylation factor 6 Source HGNC Symbol Acc HGNC 659
A08	SBH0231153	ENST00000583868.5	ARHGDI1	ENSG00000141522	Rho GDP dissociation inhibitor alpha Source HGNC Symbol Acc HGNC 678
A09	SBH0212931	ENST00000466143.5	ARHGEF7	ENSG00000102606	Rho guanine nucleotide exchange factor 7 Source HGNC Symbol Acc HGNC 15607
A10	SBH0654892	ENST00000577097.5	BAIAP2	ENSG00000175866	BAI1 associated protein 2 Source HGNC Symbol Acc HGNC 947
A11	SBH0344204	ENST00000162330.10	BCAR1	ENSG00000050820	BCAR1, Cas family scaffold protein Source HGNC Symbol Acc HGNC 971
A12	SBH0247299	ENST00000526954.5	CAPN1	ENSG00000014216	calpain 1 Source HGNC Symbol Acc HGNC 1476
B01	SBH0201957	ENST00000472601.5	CAPN2	ENSG00000162909	calpain 2 Source HGNC Symbol Acc HGNC 1479
B02	SBH0105254	ENST00000451122.5	CAV1	ENSG00000105974	caveolin 1 Source HGNC Symbol Acc HGNC 1527
B03	SBH0651826	ENST00000651171.1	CDC42	ENSG00000070831	cell division cycle 42 Source HGNC Symbol Acc HGNC 1736
B04	SBH0151650	ENST00000534769.5	CFL1	ENSG00000172757	cofilin 1 Source HGNC Symbol Acc HGNC 1874
B05	SBH0257676	ENST00000574295.1	CRK	ENSG00000167193	CRK proto-oncogene, adaptor protein Source HGNC Symbol Acc HGNC 2362
B06	SBH1219913	ENST00000420111.6	CSF1	ENSG00000184371	colony stimulating factor 1 Source HGNC Symbol Acc HGNC 2432
B07	SBH0377002	ENST00000533931.1	CTTN	ENSG00000085733	cortactin Source HGNC Symbol Acc HGNC 3338
B08	SBH0140237	ENST00000491754.5	DIAPH1	ENSG00000131504	diaphanous related formin 1 Source HGNC Symbol Acc HGNC 2876
B09	SBH0072994	ENST00000490286.5	DPP4	ENSG00000197635	dipeptidyl peptidase 4 Source HGNC Symbol Acc HGNC 3009
B10	SBH0321686	ENST00000265171.9	EGF	ENSG00000138798	epidermal growth factor Source HGNC Symbol Acc HGNC 3229
B11	SBH1219970	ENST00000454757.6	EGFR	ENSG00000146648	epidermal growth factor receptor Source HGNC Symbol Acc HGNC 3236
B12	SBH0493404	ENST00000497899.6	ENAH	ENSG00000154380	ENAH, actin regulator Source HGNC Symbol Acc HGNC 18271
C01	SBH0648550	ENST00000392177.8	EZR	ENSG00000092820	ezrin Source HGNC Symbol Acc HGNC 12691
C02	SBH0503091	ENST00000480044.5	FAP	ENSG00000078098	fibroblast activation protein alpha Source HGNC Symbol Acc HGNC 3590
C03	SBH1220000	ENST00000264498.7	FGF2	ENSG00000138685	fibroblast growth factor 2 Source HGNC Symbol Acc HGNC 3676
C04	SBH1220058	ENST00000457544.7	HGF	ENSG00000019991	hepatocyte growth factor Source HGNC Symbol Acc HGNC 4893
C05	SBH1220091	ENST00000337514.10	IGF1	ENSG00000017427	insulin like growth factor 1 Source HGNC Symbol Acc HGNC 5464
C06	SBH0201042	ENST00000650285.1	IGF1R	ENSG00000140443	insulin like growth factor 1 receptor Source HGNC Symbol Acc HGNC 5465
C07	SBH0381135	ENST00000299421.8	ILK	ENSG00000166333	integrin linked kinase Source HGNC Symbol Acc HGNC 6040
C08	SBH1220132	ENST00000397033.7	ITGA4	ENSG00000115232	integrin subunit alpha 4 Source HGNC Symbol Acc HGNC 6140
C09	SBH1220136	ENST00000302278.8	ITGB1	ENSG00000150093	integrin subunit beta 1 Source HGNC Symbol Acc HGNC 6153
C10	SBH0032107	ENST00000397857.5	ITGB2	ENSG00000160255	integrin subunit beta 2 Source HGNC Symbol Acc HGNC 6155
		ENST00000559		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH1220137	488.5	ITGB3	259207	integrin subunit beta 3 Source HGNC Symbol Acc HGNC 6156
C12	SBH0259352	ENST00000483414.1	LIMK1	ENSG00000106683	LIM domain kinase 1 Source HGNC Symbol Acc HGNC 6613
D01	SBH1220192	ENST00000544786.1	MAPK1	ENSG00000100030	mitogen-activated protein kinase 1 Source HGNC Symbol Acc HGNC 6871
D02	SBH1220210	ENST00000318493.11	MET	ENSG00000105976	MET proto-oncogene, receptor tyrosine kinase Source HGNC Symbol Acc HGNC 7029
D03	SBH1220219	ENST00000311852.11	MMP14	ENSG00000157227	matrix metalloproteinase 14 Source HGNC Symbol Acc HGNC 7160
D04	SBH1220222	ENST00000570308.5	MMP2	ENSG00000087245	matrix metalloproteinase 2 Source HGNC Symbol Acc HGNC 7166
D05	SBH0471278	ENST00000372330.3	MMP9	ENSG00000100985	matrix metalloproteinase 9 Source HGNC Symbol Acc HGNC 7176
D06	SBH1220230	ENST00000360270.7	MSN	ENSG00000147065	moesin Source HGNC Symbol Acc HGNC 7373
D07	SBH0109230	ENST00000465458.1	MYH10	ENSG00000133026	myosin heavy chain 10 Source HGNC Symbol Acc HGNC 7568
D08	SBH0437785	ENST00000401701.1	MYH9	ENSG00000100345	myosin heavy chain 9 Source HGNC Symbol Acc HGNC 7579
D09	SBH0607742	ENST00000346786.2	MYL9	ENSG00000101335	myosin light chain 9 Source HGNC Symbol Acc HGNC 15754
D10	SBH0229368	ENST00000578202.1	MYLK	ENSG00000065534	myosin light chain kinase Source HGNC Symbol Acc HGNC 7590
D11	SBH0221748	ENST00000356341.7	PAK1	ENSG00000149269	p21 (RAC1) activated kinase 1 Source HGNC Symbol Acc HGNC 8590
D12	SBH0488739	ENST00000599386.5	PAK4	ENSG00000130669	p21 (RAC1) activated kinase 4 Source HGNC Symbol Acc HGNC 16059
E01	SBH0264495	ENST00000225655.5	PFN1	ENSG00000108518	profilin 1 Source HGNC Symbol Acc HGNC 8881
E02	SBH0121428	ENST00000462255.1	PIK3CA	ENSG00000121879	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha Source HGNC Symbol Acc HGNC 8975
E03	SBH0270684	ENST00000593939.5	PLAUR	ENSG00000011422	plasminogen activator, urokinase receptor Source HGNC Symbol Acc HGNC 9053
E04	SBH0415853	ENST00000608689.5	PLCG1	ENSG00000124181	phospholipase C gamma 1 Source HGNC Symbol Acc HGNC 9065
E05	SBH0011147	ENST00000498278.5	PLD1	ENSG00000075651	phospholipase D1 Source HGNC Symbol Acc HGNC 9067
E06	SBH0105563	ENST00000578063.5	PRKCA	ENSG00000154229	protein kinase C alpha Source HGNC Symbol Acc HGNC 9393
E07	SBH1225378	ENST00000371953.8	PTEN	ENSG00000171862	phosphatase and tensin homolog Source HGNC Symbol Acc HGNC 9588
E08	SBH1220345	ENST00000523539.5	PTK2	ENSG00000169398	protein tyrosine kinase 2 Source HGNC Symbol Acc HGNC 9611
E09	SBH0358159	ENST00000521164.5	PTK2B	ENSG00000120899	protein tyrosine kinase 2 beta Source HGNC Symbol Acc HGNC 9612
E10	SBH0048297	ENST00000541713.5	PTPN1	ENSG00000196396	protein tyrosine phosphatase, non-receptor type 1 Source HGNC Symbol Acc HGNC 9642
E11	SBH0004826	ENST00000552550.5	PXN	ENSG00000089159	paxillin Source HGNC Symbol Acc HGNC 9718
E12	SBH1220352	ENST00000356142.4	RAC1	ENSG00000136238	Rac family small GTPase 1 Source HGNC Symbol Acc HGNC 9801
F01	SBH0241764	ENST00000249071.11	RAC2	ENSG00000128340	Rac family small GTPase 2 Source HGNC Symbol Acc HGNC 9802
F02	SBH0438896	ENST00000456692.6	RASA1	ENSG00000145715	RAS p21 protein activator 1 Source HGNC Symbol Acc HGNC 9871
F03	SBH0480501	ENST00000534683.1	RDX	ENSG00000137710	radixin Source HGNC Symbol Acc HGNC 9944
F04	SBH0515837	ENST00000296271.3	RHO	ENSG00000163914	rhodopsin Source HGNC Symbol Acc HGNC 10012
F05	SBH1220367	ENST00000418115.6	RHOA	ENSG00000067560	ras homolog family member A Source HGNC Symbol Acc HGNC 667
F06	SBH0318552	ENST00000272233.5	RHOB	ENSG00000143878	ras homolog family member B Source HGNC Symbol Acc HGNC 668
F07	SBH0157893	ENST00000369633.6	RHOC	ENSG00000155366	ras homolog family member C Source HGNC Symbol Acc HGNC 669
F08	SBH0527966	ENST00000409557.5	RND3	ENSG00000115963	Rho family GTPase 3 Source HGNC Symbol Acc HGNC 671
F09	SBH0145863	ENST00000635540.1	ROCK1	ENSG00000067900	Rho associated coiled-coil containing protein kinase 1 Source HGNC Symbol Acc HGNC 10251
F10	SBH0179564	ENST00000315994.6	SH3PXD2A	ENSG00000107957	SH3 and PX domains 2A Source HGNC Symbol Acc HGNC 23664

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0514958	ENST00000489153.1	SRC	ENSG00000197122	SRC proto-oncogene, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11283
F12	SBH0341614	ENST00000404395.3	STAT3	ENSG00000168610	signal transducer and activator of transcription 3 Source HGNC Symbol Acc HGNC 11364
G01	SBH0402904	ENST00000483758.1	SVIL	ENSG00000197321	supervillin Source HGNC Symbol Acc HGNC 11480
G02	SBH1220443	ENST00000598758.5	TGFB1	ENSG00000105329	transforming growth factor beta 1 Source NCBI gene Acc 7040
G03	SBH0450624	ENST00000262768.11	TIMP2	ENSG00000035862	TIMP metalloproteinase inhibitor 2 Source HGNC Symbol Acc HGNC 11821
G04	SBH0194513	ENST00000466916.1	TLN1	ENSG00000137076	talin 1 Source HGNC Symbol Acc HGNC 11845
G05	SBH0444189	ENST00000586014.5	VASP	ENSG00000125753	vasodilator stimulated phosphoprotein Source HGNC Symbol Acc HGNC 12652
G06	SBH0626257	ENST00000478896.2	VCL	ENSG00000035403	vinculin Source HGNC Symbol Acc HGNC 12665
G07	SBH0420322	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
G08	SBH1220518	ENST00000544301.7	VIM	ENSG00000026025	vimentin Source HGNC Symbol Acc HGNC 12692
G09	SBH0496720	ENST00000392588.5	WASF1	ENSG00000112290	WAS protein family member 1 Source HGNC Symbol Acc HGNC 12732
G10	SBH0601689	ENST00000536657.1	WASF2	ENSG00000158195	WAS protein family member 2 Source HGNC Symbol Acc HGNC 12733
G11	SBH0637755	ENST00000223023.5	WASL	ENSG00000106299	Wiskott-Aldrich syndrome like Source HGNC Symbol Acc HGNC 12735
G12	SBH0110651	ENST00000409891.5	WIPF1	ENSG00000115935	WAS/WASL interacting protein family member 1 Source HGNC Symbol Acc HGNC 12736
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 $\mu$ l reactions: 20 $\mu$ l 8x gDNA Removal Mix, 10 $\mu$ l Reverse Transcription Enzyme, 40 $\mu$ l Reverse Transcription Mix (containing RT primers), 20 $\mu$ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova SYBR Green RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 $\mu$ l QuantiNova SYBR Green RT Mix, 20 $\mu$ l Internal Control RNA, 500 $\mu$ l Yellow Template Dilution Buffer, 250 $\mu$ l ROX Reference Dye, 1.9 $\mu$ l RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ 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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