

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

## Human Focal Adhesions

Cat. no. 249955 UPHS-145ZR

For study focus gene expression analysis

### Shipping and storage

QuantiNova LNA Probe PCR Focus Panels are shipped at room temperature. Immediately upon receipt, they should be stored protected from light 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 Probe PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova Probe PCR Kit (Mastermix) for PCR.

### Panel layout (Rotor-Gene): QuantiNova LNA Probe 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 Probe PCR 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	ACTN2	ACTN4	AKT1	AKT2	AKT3	ARHGAP5	BCAR1	CAPN2	CAV1	CAV2	CAV3
B	CDC42	CRK	CRKL	CTNNB1	DIAPH1	DOCK1	DST	FLNA	FLNB	FYN	GRB2	GSK3B
C	HRAS	ILK	ITGA1	ITGA11	ITGA2	ITGA2B	ITGA3	ITGA4	ITGA5	ITGA6	ITGA7	ITGA8
D	ITGA9	ITGAL	ITGAM	ITGAV	ITGAX	ITGB1	ITGB2	ITGB3	ITGB4	ITGB5	ITGB6	PAK1
E	PAK2	PAK3	PAK4	PARVA	PARVB	PARVG	PDPK1	PIPSK1C	PLEC	PRKCA	PRKCB	PRKCG
F	PTEN	PTK2	PXN	RAC1	RAC2	RAF1	RAP1A	RAP1B	RAPGEF1	RASGRF1	RHOA	ROCK1
G	ROCK2	SHC1	SOS1	SOS2	SRC	TLN1	TNS1	VASP	VAV1	VAV2	VCL	ZYX
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	QIC	QIC	QIC	PPC	PPC	PPC

## Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFH0586030	ENST00000438964.6	ACTN1	ENSG00000072110	actinin alpha 1 Source HGNC Symbol Acc HGNC 163
A02	UPFH0081778	ENST00000651275.1	ACTN2	ENSG00000077522	actinin alpha 2 Source HGNC Symbol Acc HGNC 164
A03	UPFH0354547	ENST00000390009.7	ACTN4	ENSG000000130402	actinin alpha 4 Source HGNC Symbol Acc HGNC 166
A04	UPFH0453992	ENST0000055528.5	AKT1	ENSG000000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A05	UPFH0246744	ENST00000441941.6	AKT2	ENSG000000105221	AKT serine/threonine kinase 2 Source HGNC Symbol Acc HGNC 392
A06	UPFH0198803	ENST00000336199.9	AKT3	ENSG000000117020	AKT serine/threonine kinase 3 Source HGNC Symbol Acc HGNC 393
A07	UPFH0506293	ENST00000557643.1	ARHGAP5	ENSG000000100852	Rho GTPase activating protein 5 Source HGNC Symbol Acc HGNC 675
A08	UPFH0300381	ENST00000418647.7	BCAR1	ENSG000000050820	BCAR1, Cas family scaffold protein Source HGNC Symbol Acc HGNC 971
A09	UPFH0544717	ENST00000433674.6	CAPN2	ENSG000000162909	calpain 2 Source HGNC Symbol Acc HGNC 1479
A10	UPFH0192343	ENST00000393468.1	CAV1	ENSG000000105974	caveolin 1 Source HGNC Symbol Acc HGNC 1527
A11	UPFH1132285	ENST00000222693.5	CAV2	ENSG000000105971	caveolin 2 Source HGNC Symbol Acc HGNC 1528
A12	UPFH0013779	ENST00000397368.2	CAV3	ENSG000000182533	caveolin 3 Source HGNC Symbol Acc HGNC 1529
B01	UPFH0571108	ENST00000400259.5	CDC42	ENSG000000070831	cell division cycle 42 Source HGNC Symbol Acc HGNC 1736
B02	UPFH0150681	ENST00000572145.1	CRK	ENSG000000167193	CRK proto-oncogene, adaptor protein Source HGNC Symbol Acc HGNC 2362
B03	UPFH0493931	ENST00000354336.8	CRKL	ENSG000000099942	CRK like proto-oncogene, adaptor protein Source HGNC Symbol Acc HGNC 2363
B04	UPFH0097734	ENST00000396183.7	CTNNB1	ENSG000000168036	catenin beta 1 Source HGNC Symbol Acc HGNC 2514
B05	UPFH0244789	ENST00000398557.8	DIAPH1	ENSG000000131504	diaphanous related formin 1 Source HGNC Symbol Acc HGNC 2876
B06	UPFH0094239	ENST00000623213.1	DOCK1	ENSG000000150760	dedicator of cytokinesis 1 Source HGNC Symbol Acc HGNC 2987
B07	UPFH0252765	ENST00000520645.5	DST	ENSG000000151914	dystonin Source HGNC Symbol Acc HGNC 1090
B08	UPFH0017156	ENST00000498491.5	FLNA	ENSG000000196924	filamin A Source HGNC Symbol Acc HGNC 3754
B09	UPFH0246085	ENST00000475487.1	FLNB	ENSG000000136068	filamin B Source HGNC Symbol Acc HGNC 3755
B10	UPFH0007252	ENST00000496864.6	FYN	ENSG000000010810	FYN proto-oncogene, Src family tyrosine kinase Source HGNC Symbol Acc HGNC 4037
B11	UPFH1132426	ENST00000392564.5	GRB2	ENSG000000177885	growth factor receptor bound protein 2 Source HGNC Symbol Acc HGNC 4566
B12	UPFH0470775	ENST00000316626.5	GSK3B	ENSG000000082701	glycogen synthase kinase 3 beta Source HGNC Symbol Acc HGNC 4617
C01	UPFH1132981	ENST00000311189.8	HRAS	ENSG000000174775	HRas proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 5173
C02	UPFH0412404	ENST00000299421.8	ILK	ENSG000000166333	integrin linked kinase Source HGNC Symbol Acc HGNC 6040
C03	UPFH0229386	ENST00000282588.6	ITGA1	ENSG000000213949	integrin subunit alpha 1 Source HGNC Symbol Acc HGNC 6134
C04	UPFH0206954	ENST00000562826.5	ITGA11	ENSG000000137809	integrin subunit alpha 11 Source HGNC Symbol Acc HGNC 6136
C05	UPFH1132496	ENST00000296585.10	ITGA2	ENSG000000164171	integrin subunit alpha 2 Source HGNC Symbol Acc HGNC 6137
C06	UPFH0142889	ENST00000592253.5	ITGA2B	ENSG000000005961	integrin subunit alpha 2b Source HGNC Symbol Acc HGNC 6138
C07	UPFH1132814	ENST00000320031.13	ITGA3	ENSG000000005884	integrin subunit alpha 3 Source HGNC Symbol Acc HGNC 6139
C08	UPFH1132815	ENST00000397033.7	ITGA4	ENSG000000115232	integrin subunit alpha 4 Source HGNC Symbol Acc HGNC 6140
C09	UPFH1132497	ENST00000293379.9	ITGA5	ENSG000000161638	integrin subunit alpha 5 Source HGNC Symbol Acc HGNC 6141
C10	UPFH0124444	ENST00000264107.11	ITGA6	ENSG000000091409	integrin subunit alpha 6 Source HGNC Symbol Acc HGNC 6142
		ENST00000555		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH0265512	728.5	ITGA7	135424	integrin subunit alpha 7 Source HGNC Symbol Acc HGNC 6143
C12	UPFH0034113	ENST00000477064.1	ITGA8	ENSG00000077943	integrin subunit alpha 8 Source HGNC Symbol Acc HGNC 6144
D01	UPFH0191534	ENST00000264741.10	ITGA9	ENSG00000144668	integrin subunit alpha 9 Source HGNC Symbol Acc HGNC 6145
D02	UPFH0367914	ENST00000356798.10	ITGAL	ENSG00000005844	integrin subunit alpha L Source HGNC Symbol Acc HGNC 6148
D03	UPFH0542903	ENST00000287497.13	ITGAM	ENSG00000169896	integrin subunit alpha M Source HGNC Symbol Acc HGNC 6149
D04	UPFH1132816	ENST00000261023.8	ITGAV	ENSG00000138448	integrin subunit alpha V Source HGNC Symbol Acc HGNC 6150
D05	UPFH0136150	ENST00000562522.2	ITGAX	ENSG00000140678	integrin subunit alpha X Source HGNC Symbol Acc HGNC 6152
D06	UPFH1132498	ENST00000423113.5	ITGB1	ENSG00000150093	integrin subunit beta 1 Source HGNC Symbol Acc HGNC 6153
D07	UPFH1132499	ENST00000397850.6	ITGB2	ENSG00000160255	integrin subunit beta 2 Source HGNC Symbol Acc HGNC 6155
D08	UPFH1132500	ENST00000559488.5	ITGB3	ENSG00000259207	integrin subunit beta 3 Source HGNC Symbol Acc HGNC 6156
D09	UPFH1132501	ENST00000200181.8	ITGB4	ENSG00000132470	integrin subunit beta 4 Source HGNC Symbol Acc HGNC 6158
D10	UPFH1132502	ENST00000608107.1	ITGB5	ENSG00000082781	integrin subunit beta 5 Source HGNC Symbol Acc HGNC 6160
D11	UPFH1132503	ENST00000620391.4	ITGB6	ENSG00000115221	integrin subunit beta 6 Source HGNC Symbol Acc HGNC 6161
D12	UPFH0310946	ENST00000356341.7	PAK1	ENSG00000149269	p21 (RAC1) activated kinase 1 Source HGNC Symbol Acc HGNC 8590
E01	UPFH0578402	ENST00000426668.1	PAK2	ENSG00000180370	p21 (RAC1) activated kinase 2 Source HGNC Symbol Acc HGNC 8591
E02	UPFH1124098	ENST00000372007.10	PAK3	ENSG00000077264	p21 (RAC1) activated kinase 3 Source HGNC Symbol Acc HGNC 8592
E03	UPFH0491525	ENST00000321944.8	PAK4	ENSG00000130669	p21 (RAC1) activated kinase 4 Source HGNC Symbol Acc HGNC 16059
E04	UPFH0567740	ENST00000533392.1	PARVA	ENSG00000197702	parvin alpha Source HGNC Symbol Acc HGNC 14652
E05	UPFH0535944	ENST00000406477.7	PARVB	ENSG00000188677	parvin beta Source HGNC Symbol Acc HGNC 14653
E06	UPFH0176598	ENST00000356909.7	PARVG	ENSG00000138964	parvin gamma Source HGNC Symbol Acc HGNC 14654
E07	UPFH0104991	ENST00000389224.7	PDPK1	ENSG00000140992	3-phosphoinositide dependent protein kinase 1 Source HGNC Symbol Acc HGNC 8816
E08	UPFH0128110	ENST00000539785.5	PIP5K1C	ENSG00000186111	phosphatidylinositol-4-phosphate 5-kinase type 1 gamma Source HGNC Symbol Acc HGNC 8996
E09	UPFH0204047	ENST00000526416.5	PLEC	ENSG00000178209	plectin Source HGNC Symbol Acc HGNC 9069
E10	UPFH0607768	ENST00000578063.5	PRKCA	ENSG00000154229	protein kinase C alpha Source HGNC Symbol Acc HGNC 9393
E11	UPFH0529104	ENST00000646168.1	PRKCB	ENSG00000166501	protein kinase C beta Source HGNC Symbol Acc HGNC 9395
E12	UPFH0047967	ENST00000474397.5	PRKCG	ENSG00000126583	protein kinase C gamma Source HGNC Symbol Acc HGNC 9402
F01	UPFH1132982	ENST00000371953.8	PTEN	ENSG00000171862	phosphatase and tensin homolog Source HGNC Symbol Acc HGNC 9588
F02	UPFH1132643	ENST00000522684.5	PTK2	ENSG00000169398	protein tyrosine kinase 2 Source HGNC Symbol Acc HGNC 9611
F03	UPFH0358908	ENST00000547983.5	PXN	ENSG00000089159	paxillin Source HGNC Symbol Acc HGNC 9718
F04	UPFH1132648	ENST00000348035.9	RAC1	ENSG00000136238	Rac family small GTPase 1 Source HGNC Symbol Acc HGNC 9801
F05	UPFH0283088	ENST00000249071.11	RAC2	ENSG00000128340	Rac family small GTPase 2 Source HGNC Symbol Acc HGNC 9802
F06	UPFH0380839	ENST00000416093.1	RAF1	ENSG00000132155	Raf-1 proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 9829
F07	UPFH0233643	ENST00000369709.3	RAP1A	ENSG00000116473	RAP1A, member of RAS oncogene family Source HGNC Symbol Acc HGNC 9855
F08	UPFH0071565	ENST00000541386.5	RAP1B	ENSG00000127314	RAP1B, member of RAS oncogene family Source HGNC Symbol Acc HGNC 9857
F09	UPFH0396768	ENST00000438647.3	RAPGEF1	ENSG00000107263	Rap guanine nucleotide exchange factor 1 Source HGNC Symbol Acc HGNC 4568
F10	UPFH0409216	ENST00000394745.3	RASGRF1	ENSG00000058335	Ras protein specific guanine nucleotide releasing factor 1 Source HGNC Symbol Acc HGNC 9875

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH1132657	ENST00000445425.4	RHOA	ENSG00000067560	ras homolog family member A Source HGNC Symbol Acc HGNC 667
F12	UPFH0614334	ENST00000578051.1	ROCK1	ENSG00000067900	Rho associated coiled-coil containing protein kinase 1 Source HGNC Symbol Acc HGNC 10251
G01	UPFH0472235	ENST00000462366.1	ROCK2	ENSG000000134318	Rho associated coiled-coil containing protein kinase 2 Source HGNC Symbol Acc HGNC 10252
G02	UPFH0141239	ENST00000368449.8	SHC1	ENSG000000160691	SHC adaptor protein 1 Source HGNC Symbol Acc HGNC 10840
G03	UPFH0313184	ENST00000395038.6	SOS1	ENSG000000115904	SOS Ras/Rac guanine nucleotide exchange factor 1 Source HGNC Symbol Acc HGNC 11187
G04	UPFH0065821	ENST00000555666.1	SOS2	ENSG000000100485	SOS Ras/Rho guanine nucleotide exchange factor 2 Source HGNC Symbol Acc HGNC 11188
G05	UPFH0308412	ENST00000472968.1	SRC	ENSG000000197122	SRC proto-oncogene, non-receptor tyrosine kinase Source HGNC Symbol Acc HGNC 11283
G06	UPFH0064240	ENST00000378192.2	TLN1	ENSG000000137076	talin 1 Source HGNC Symbol Acc HGNC 11845
G07	UPFH0255255	ENST00000651849.1	TNS1	ENSG000000079308	tensin 1 Source HGNC Symbol Acc HGNC 11973
G08	UPFH0013526	ENST00000592139.1	VASP	ENSG000000125753	vasodilator stimulated phosphoprotein Source HGNC Symbol Acc HGNC 12652
G09	UPFH0537533	ENST00000596764.5	VAV1	ENSG000000141968	vav guanine nucleotide exchange factor 1 Source HGNC Symbol Acc HGNC 12657
G10	UPFH0110382	ENST00000371851.1	VAV2	ENSG000000160293	vav guanine nucleotide exchange factor 2 Source HGNC Symbol Acc HGNC 12658
G11	UPFH0466583	ENST00000478896.2	VCL	ENSG000000035403	vinculin Source HGNC Symbol Acc HGNC 12665
G12	UPFH0292796	ENST00000477373.1	ZYX	ENSG000000159840	zyxin Source HGNC Symbol Acc HGNC 13200
H01	UPFH1132936	ENST00000646664.1	ACTB	ENSG000000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	UPFH1132937	ENST00000544417.5	B2M	ENSG000000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	UPFH1132938	ENST00000229239.10	GAPDH	ENSG000000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	UPFH1132939	ENST00000298556.8	HPRT1	ENSG000000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	UPFH1132941	ENST00000392514.9	RPLP0	ENSG000000089157	ribosomal protein lateral stalk subunit P0 Source HGNC Symbol Acc HGNC 10371
H06	UPFH1126608	UPL_HGDC	HGDC	UPL_HGDC	Human Genomic DNA Contamination
H07	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H08	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H09	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H10	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H11	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H12	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control



## Related products

Product	Contents	Cat. no.
QuantiNova LNA Probe PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA Probe PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249945
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 Probe RT-PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 $\mu$ l QuantiNova Probe 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	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l QN ROX Reference Dye, 1.9 ml Water	208252

\*Larger kit sizes available.

The QuantiNova LNA Probe 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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