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

Human Insulin Signaling Pathway

Cat. no. 249955 UPHS-030ZR

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** for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	ACACA	ACOX1	ADRB3	AEBP1	AKT1	AKT2	AKT3	ANG	ARAF	BCL2L1	BRAF	CAP1
B	CBL	CEBPA	CEBPB	DOK1	DOK2	DOK3	DUSP14	EIF2B1	EIF4EBP1	ERCC1	FASN	FBP1
C	FOS	FRS2	FRS3	G6PC	GAB1	GCK	GPD1	GRB2	GSK3A	GSK3B	HK2	HRAS
D	IGF1R	IGF2	IGFBP1	INS	INSL3	INSR	IRS1	IRS2	IRS4	JUN	KRAS	LDLR
E	LEP	MAP2K1	MAPK1	MTOR	NCK1	NOS2	NPY	PCK2	PDPK1	PIK3CA	PIK3R1	PIK3R2
F	PKM	PPARG	PPP1CA	PRKCG	PRKCI	PRKCZ	PRL	PTPN1	PTPRF	RAF1	RETN	RPS6KA1
G	RRAS	RRAS2	SERPINE1	SHC1	SLC2A1	SLC2A4	SORBS1	SOS1	SREBF1	TG	UCP1	VEGFA
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	UPFH0196586	ENST00000617649.4	ACACA	ENSG00000278540	acetyl-CoA carboxylase alpha Source HGNC Symbol Acc HGNC 84
A02	UPFH0241138	ENST00000573078.5	ACOX1	ENSG00000161533	acyl-CoA oxidase 1 Source HGNC Symbol Acc HGNC 119
A03	UPFH0554763	ENST00000520341.2	ADRB3	ENSG00000188778	adrenoceptor beta 3 Source HGNC Symbol Acc HGNC 288
A04	UPFH0211088	ENST00000223357.8	AEBP1	ENSG00000106624	AE binding protein 1 Source HGNC Symbol Acc HGNC 303
A05	UPFH0453992	ENST00000555528.5	AKT1	ENSG00000142208	AKT serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 391
A06	UPFH0246744	ENST00000441941.6	AKT2	ENSG00000105221	AKT serine/threonine kinase 2 Source HGNC Symbol Acc HGNC 392
A07	UPFH0198803	ENST00000336199.9	AKT3	ENSG00000117020	AKT serine/threonine kinase 3 Source HGNC Symbol Acc HGNC 393
A08	UPFH0091321	ENST00000336811.10	ANG	ENSG00000214274	angiogenin Source HGNC Symbol Acc HGNC 483
A09	UPFH0579274	ENST00000290277.10	ARAF	ENSG00000078061	A-Raf proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 646
A10	UPFH1132271	ENST00000376062.6	BCL2L1	ENSG00000171552	BCL2 like 1 Source HGNC Symbol Acc HGNC 992
A11	UPFH0559252	ENST00000646891.1	BRAF	ENSG00000157764	B-Raf proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 1097
A12	UPFH0063202	ENST00000340450.7	CAP1	ENSG00000131236	cyclase associated actin cytoskeleton regulatory protein 1 Source HGNC Symbol Acc HGNC 20040
B01	UPFH0561363	ENST00000634840.1	CBL	ENSG00000110395	Cbl proto-oncogene Source HGNC Symbol Acc HGNC 1541
B02	UPFH0223943	ENST00000498907.3	CEBPA	ENSG00000245848	CCAAT enhancer binding protein alpha Source HGNC Symbol Acc HGNC 1833
B03	UPFH0202295	ENST00000303004.4	CEBPB	ENSG00000172216	CCAAT enhancer binding protein beta Source HGNC Symbol Acc HGNC 1834
B04	UPFH0525000	ENST00000489958.5	DOK1	ENSG00000115325	docking protein 1 Source HGNC Symbol Acc HGNC 2990
B05	UPFH0422203	ENST00000518197.1	DOK2	ENSG00000147443	docking protein 2 Source HGNC Symbol Acc HGNC 2991
B06	UPFH0492912	ENST00000377112.8	DOK3	ENSG00000146094	docking protein 3 Source HGNC Symbol Acc HGNC 24583
B07	UPFH0065211	ENST00000614411.1	DUSP14	ENSG00000276023	dual specificity phosphatase 14 Source HGNC Symbol Acc HGNC 17007
B08	UPFH0455928	ENST00000534960.5	EIF2B1	ENSG00000111361	eukaryotic translation initiation factor 2B subunit alpha Source HGNC Symbol Acc HGNC 3257
B09	UPFH0096211	ENST00000520657.1	EIF4EBP1	ENSG00000187840	eukaryotic translation initiation factor 4E binding protein 1 Source HGNC Symbol Acc HGNC 3288
B10	UPFH0129620	ENST00000300853.7	ERCC1	ENSG00000012061	ERCC excision repair 1, endonuclease non-catalytic subunit Source HGNC Symbol Acc HGNC 3433
B11	UPFH0422393	ENST00000635197.1	FASN	ENSG00000169710	fatty acid synthase Source HGNC Symbol Acc HGNC 3594
B12	UPFH1132397	ENST00000415431.5	FBP1	ENSG00000165140	fructose-bisphosphatase 1 Source HGNC Symbol Acc HGNC 3606
C01	UPFH1132401	ENST00000555242.1	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796
C02	UPFH0260835	ENST00000397997.6	FRS2	ENSG00000166225	fibroblast growth factor receptor substrate 2 Source HGNC Symbol Acc HGNC 16971
C03	UPFH1125272	ENST00000426290.1	FRS3	ENSG00000137218	fibroblast growth factor receptor substrate 3 Source HGNC Symbol Acc HGNC 16970
C04	UPFH0468561	ENST00000253801.6	G6PC	ENSG00000131482	glucose-6-phosphatase catalytic subunit Source HGNC Symbol Acc HGNC 4056
C05	UPFH0243246	ENST00000509992.1	GAB1	ENSG00000109458	GRB2 associated binding protein 1 Source HGNC Symbol Acc HGNC 4066
C06	UPFH0335565	ENST00000395796.7	GCK	ENSG00000106633	glucokinase Source HGNC Symbol Acc HGNC 4195
C07	UPFH0126857	ENST00000548152.1	GPD1	ENSG00000167588	glycerol-3-phosphate dehydrogenase 1 Source HGNC Symbol Acc HGNC 4455
C08	UPFH1132426	ENST00000392564.5	GRB2	ENSG00000177885	growth factor receptor bound protein 2 Source HGNC Symbol Acc HGNC 4566
C09	UPFH1132428	ENST00000398249.8	GSK3A	ENSG00000105723	glycogen synthase kinase 3 alpha Source HGNC Symbol Acc HGNC 4616
C10	UPFH0470775	ENST00000316626.5	GSK3B	ENSG00000082701	glycogen synthase kinase 3 beta Source HGNC Symbol Acc HGNC 4617
		ENST00000409		ENSG00000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH1132910	174.1	HK2	159399	hexokinase 2 Source HGNC Symbol Acc HGNC 4923
C12	UPFH1132981	ENST00000311189.8	HRAS	ENSG00000174775	HRas proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 5173
D01	UPFH0237955	ENST00000650285.1	IGF1R	ENSG00000140443	insulin like growth factor 1 receptor Source HGNC Symbol Acc HGNC 5465
D02	UPFH0479939	ENST00000418738.2	IGF2	ENSG00000167244	insulin like growth factor 2 Source HGNC Symbol Acc HGNC 5466
D03	UPFH0226057	ENST00000468955.1	IGFBP1	ENSG00000146678	insulin like growth factor binding protein 1 Source HGNC Symbol Acc HGNC 5469
D04	UPFH1132488	ENST00000381330.4	INS	ENSG00000254647	insulin Source HGNC Symbol Acc HGNC 6081
D05	UPFH0497823	ENST00000598577.1	INSL3	ENSG00000248099	insulin like 3 Source HGNC Symbol Acc HGNC 6086
D06	UPFH0483358	ENST00000598216.1	INSR	ENSG00000171105	insulin receptor Source HGNC Symbol Acc HGNC 6091
D07	UPFH0592509	ENST00000305123.5	IRS1	ENSG00000169047	insulin receptor substrate 1 Source HGNC Symbol Acc HGNC 6125
D08	UPFH0575069	ENST00000375856.5	IRS2	ENSG00000185950	insulin receptor substrate 2 Source HGNC Symbol Acc HGNC 6126
D09	UPFH0372651	ENST00000372129.3	IRS4	ENSG00000133124	insulin receptor substrate 4 Source HGNC Symbol Acc HGNC 6128
D10	UPFH0569765	ENST00000371222.3	JUN	ENSG00000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
D11	UPFH0376060	ENST00000557334.5	KRAS	ENSG00000133703	KRAS proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 6407
D12	UPFH0616676	ENST00000252444.9	LDLR	ENSG00000130164	low density lipoprotein receptor Source HGNC Symbol Acc HGNC 6547
E01	UPFH1132519	ENST00000308868.5	LEP	ENSG00000174697	leptin Source HGNC Symbol Acc HGNC 6553
E02	UPFH1132932	ENST00000307102.9	MAP2K1	ENSG00000169032	mitogen-activated protein kinase kinase 1 Source HGNC Symbol Acc HGNC 6840
E03	UPFH0366815	ENST00000215832.10	MAPK1	ENSG00000100030	mitogen-activated protein kinase 1 Source HGNC Symbol Acc HGNC 6871
E04	UPFH1132560	ENST00000361445.8	MTOR	ENSG00000198793	mechanistic target of rapamycin kinase Source HGNC Symbol Acc HGNC 3942
E05	UPFH0531352	ENST00000467911.1	NCK1	ENSG00000158092	NCK adaptor protein 1 Source HGNC Symbol Acc HGNC 7664
E06	UPFH0572128	ENST00000313735.10	NOS2	ENSG00000007171	nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873
E07	UPFH0380153	ENST00000407573.5	NPY	ENSG00000122585	neuropeptide Y Source HGNC Symbol Acc HGNC 7955
E08	UPFH0165951	ENST00000216780.8	PCK2	ENSG00000100889	phosphoenolpyruvate carboxykinase 2, mitochondrial Source HGNC Symbol Acc HGNC 8725
E09	UPFH0104991	ENST00000389224.7	PDPK1	ENSG00000140992	3-phosphoinositide dependent protein kinase 1 Source HGNC Symbol Acc HGNC 8816
E10	UPFH0109251	ENST00000462255.1	PIK3CA	ENSG00000121879	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha Source HGNC Symbol Acc HGNC 8975
E11	UPFH0549122	ENST00000521381.6	PIK3R1	ENSG00000145675	phosphoinositide-3-kinase regulatory subunit 1 Source HGNC Symbol Acc HGNC 8979
E12	UPFH0463753	ENST00000617130.4	PIK3R2	ENSG00000105647	phosphoinositide-3-kinase regulatory subunit 2 Source HGNC Symbol Acc HGNC 8980
F01	UPFH0066181	ENST00000319622.10	PKM	ENSG00000067225	pyruvate kinase M1/2 Source HGNC Symbol Acc HGNC 9021
F02	UPFH0284890	ENST00000477039.5	PPARG	ENSG00000132170	peroxisome proliferator activated receptor gamma Source HGNC Symbol Acc HGNC 9236
F03	UPFH0171644	ENST00000537694.1	PPP1CA	ENSG00000172531	protein phosphatase 1 catalytic subunit alpha Source HGNC Symbol Acc HGNC 9281
F04	UPFH0047967	ENST00000474397.5	PRKCG	ENSG00000126583	protein kinase C gamma Source HGNC Symbol Acc HGNC 9402
F05	UPFH0115663	ENST00000485837.5	PRKCI	ENSG00000163558	protein kinase C iota Source HGNC Symbol Acc HGNC 9404
F06	UPFH1132634	ENST00000378567.8	PRKCZ	ENSG00000067606	protein kinase C zeta Source HGNC Symbol Acc HGNC 9412
F07	UPFH0580799	ENST00000615510.4	PRL	ENSG00000172179	prolactin Source HGNC Symbol Acc HGNC 9445
F08	UPFH0306220	ENST00000371621.5	PTPN1	ENSG00000196396	protein tyrosine phosphatase, non-receptor type 1 Source HGNC Symbol Acc HGNC 9642
F09	UPFH0399307	ENST00000617451.4	PTPRF	ENSG00000142949	protein tyrosine phosphatase, receptor type F Source HGNC Symbol Acc HGNC 9670
F10	UPFH0380839	ENST00000416093.1	RAF1	ENSG00000132155	Raf-1 proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 9829

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH0306767	ENST00000629642.1	RETN	ENSG00000104918	resistin Source HGNC Symbol Acc HGNC 20389
F12	UPFH0220518	ENST00000374168.7	RPS6KA1	ENSG00000117676	ribosomal protein S6 kinase A1 Source HGNC Symbol Acc HGNC 10430
G01	UPFH0543945	ENST00000601532.1	RRAS	ENSG00000126458	RAS related Source HGNC Symbol Acc HGNC 10447
G02	UPFH0160688	ENST00000537760.5	RRAS2	ENSG00000133818	RAS related 2 Source HGNC Symbol Acc HGNC 17271
G03	UPFH0384736	ENST00000223095.4	SERPINE1	ENSG00000106366	serpin family E member 1 Source HGNC Symbol Acc HGNC 8583
G04	UPFH0141239	ENST00000368449.8	SHC1	ENSG00000160691	SHC adaptor protein 1 Source HGNC Symbol Acc HGNC 10840
G05	UPFH0225912	ENST00000426263.8	SLC2A1	ENSG00000117394	solute carrier family 2 member 1 Source HGNC Symbol Acc HGNC 11005
G06	UPFH0163622	ENST00000317370.12	SLC2A4	ENSG00000181856	solute carrier family 2 member 4 Source HGNC Symbol Acc HGNC 11009
G07	UPFH1132693	ENST00000371241.5	SORBS1	ENSG00000095637	sorbin and SH3 domain containing 1 Source HGNC Symbol Acc HGNC 14565
G08	UPFH0313184	ENST00000395038.6	SOS1	ENSG00000115904	SOS Ras/Rac guanine nucleotide exchange factor 1 Source HGNC Symbol Acc HGNC 11187
G09	UPFH0380685	ENST00000490796.1	SREBF1	ENSG00000072310	sterol regulatory element binding transcription factor 1 Source HGNC Symbol Acc HGNC 11289
G10	UPFH0339957	ENST00000519543.5	TG	ENSG00000042832	thyroglobulin Source HGNC Symbol Acc HGNC 11764
G11	UPFH0141236	ENST00000262999.4	UCP1	ENSG00000109424	uncoupling protein 1 Source HGNC Symbol Acc HGNC 12517
G12	UPFH0281656	ENST00000425836.6	VEGFA	ENSG00000112715	vascular endothelial growth factor A Source HGNC Symbol Acc HGNC 12680
H01	UPFH1132936	ENST00000646664.1	ACTB	ENSG00000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	UPFH1132937	ENST00000544417.5	B2M	ENSG00000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	UPFH1132938	ENST00000229239.10	GAPDH	ENSG00000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	UPFH1132939	ENST00000298556.8	HPRT1	ENSG00000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	UPFH1132941	ENST00000392514.9	RPLP0	ENSG00000089157	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 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 Probe RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 µl QuantiNova Probe RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl 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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.