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

Human Hypoxia Signaling Pathway

Cat. no. 249955 UPHS-032ZR

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	ADM	ADORA2B	ALDOA	ANGPTL4	ANKRD37	ANXA2	APEX1	ARNT	ATR	BHLHE40	BLM	BNIP3
B	BNIP3L	BTG1	CA9	CCNG2	COPS5	CTSA	DDIT4	DNAJC5	EDN1	EGLN1	EGLN2	EGR1
C	EIF4EBP1	ENO1	EPO	ERO1A	F10	F3	FOS	GBE1	GPI	GYS1	HIF1A	HIF1AN
D	HIF3A	HK2	HMOX1	HNF4A	IER3	IGFBP3	JMJD6	LDHA	LGALS3	LOX	MAP3K1	MET
E	MIF	MMP9	MXI1	NAMPT	NCOA1	NDRG1	NFKB1	NOS3	ODC1	P4HA1	P4HB	PDK1
F	PER1	PFKFB3	PFKFB4	PFKL	PFKP	PGAM1	PGF	PGK1	PIM1	PKM	PLAU	RBPJ
G	RUVBL2	SERPINE1	SLC16A3	SLC2A1	SLC2A3	TFRC	TP53	TPI1	TXNIP	USF2	VDAC1	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	UPFH1172899	ENST00000528655.5	ADM	ENSG00000148926	adrenomedullin Source HGNC Symbol Acc HGNC 259
A02	UPFH0190562	ENST00000582124.1	ADORA2B	ENSG00000170425	adenosine A2b receptor Source HGNC Symbol Acc HGNC 264
A03	UPFH0184034	ENST00000564688.1	ALDOA	ENSG00000149925	aldolase, fructose-bisphosphate A Source HGNC Symbol Acc HGNC 414
A04	UPFH1132232	ENST00000301455.7	ANGPTL4	ENSG00000167772	angiopoietin like 4 Source HGNC Symbol Acc HGNC 16039
A05	UPFH0500213	ENST00000507479.5	ANKRD37	ENSG00000186352	ankyrin repeat domain 37 Source HGNC Symbol Acc HGNC 29593
A06	UPFH0484079	ENST00000396024.7	ANXA2	ENSG00000182718	annexin A2 Source HGNC Symbol Acc HGNC 537
A07	UPFH0321059	ENST00000555414.5	APEX1	ENSG00000100823	apurinic/apyrimidinic endodeoxyribonuclease 1 Source HGNC Symbol Acc HGNC 587
A08	UPFH1132241	ENST00000354396.6	ARNT	ENSG00000143437	aryl hydrocarbon receptor nuclear translocator Source HGNC Symbol Acc HGNC 700
A09	UPFH1132260	ENST00000350721.9	ATR	ENSG00000175054	ATR serine/threonine kinase Source HGNC Symbol Acc HGNC 882
A10	UPFH0490613	ENST00000460806.1	BHLHE40	ENSG00000134107	basic helix-loop-helix family member e40 Source HGNC Symbol Acc HGNC 1046
A11	UPFH1132273	ENST00000355112.8	BLM	ENSG00000197299	BLM RecQ like helicase Source HGNC Symbol Acc HGNC 1058
A12	UPFH0140616	ENST00000633835.1	BNIP3	ENSG00000176171	BCL2 interacting protein 3 Source HGNC Symbol Acc HGNC 1084
B01	UPFH1132277	ENST00000520409.5	BNIP3L	ENSG00000104765	BCL2 interacting protein 3 like Source HGNC Symbol Acc HGNC 1085
B02	UPFH0449279	ENST00000552315.1	BTG1	ENSG00000133639	BTG anti-proliferation factor 1 Source HGNC Symbol Acc HGNC 1130
B03	UPFH1132903	ENST00000617161.1	CA9	ENSG00000107159	carbonic anhydrase 9 Source HGNC Symbol Acc HGNC 1383
B04	UPFH1132300	ENST00000512918.5	CCNG2	ENSG00000138764	cyclin G2 Source HGNC Symbol Acc HGNC 1593
B05	UPFH0484285	ENST00000517736.5	COPS5	ENSG00000121022	COP9 signalosome subunit 5 Source HGNC Symbol Acc HGNC 2240
B06	UPFH1155248	ENST00000493522.6	CTSA	ENSG00000064601	cathepsin A Source HGNC Symbol Acc HGNC 9251
B07	UPFH0269420	ENST00000307365.4	DDIT4	ENSG00000168209	DNA damage inducible transcript 4 Source HGNC Symbol Acc HGNC 24944
B08	UPFH0215707	ENST00000470551.1	DNAJC5	ENSG00000101152	DnaJ heat shock protein family (Hsp40) member C5 Source HGNC Symbol Acc HGNC 16235
B09	UPFH1132801	ENST00000379375.6	EDN1	ENSG00000078401	endothelin 1 Source HGNC Symbol Acc HGNC 3176
B10	UPFH0477711	ENST00000366641.3	EGLN1	ENSG00000135766	egl-9 family hypoxia inducible factor 1 Source HGNC Symbol Acc HGNC 1232
B11	UPFH0500582	ENST00000598654.1	EGLN2	ENSG00000269858	egl-9 family hypoxia inducible factor 2 Source HGNC Symbol Acc HGNC 14660
B12	UPFH0558832	ENST00000239938.5	EGR1	ENSG00000120738	early growth response 1 Source HGNC Symbol Acc HGNC 3238
C01	UPFH0096211	ENST00000520657.1	EIF4EBP1	ENSG00000187840	eukaryotic translation initiation factor 4E binding protein 1 Source HGNC Symbol Acc HGNC 3288
C02	UPFH0404044	ENST00000234590.10	ENO1	ENSG00000074800	enolase 1 Source HGNC Symbol Acc HGNC 3350
C03	UPFH0083071	ENST00000252723.3	EPO	ENSG00000130427	erythropoietin Source HGNC Symbol Acc HGNC 3415
C04	UPFH0146044	ENST00000395686.8	ERO1A	ENSG00000197930	endoplasmic reticulum oxidoreductase 1 alpha Source HGNC Symbol Acc HGNC 13280
C05	UPFH0320540	ENST00000410083.6	F10	ENSG00000126218	coagulation factor X Source HGNC Symbol Acc HGNC 3528
C06	UPFH1132393	ENST00000334047.12	F3	ENSG00000117525	coagulation factor III, tissue factor Source HGNC Symbol Acc HGNC 3541
C07	UPFH1132401	ENST00000555242.1	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796
C08	UPFH1132417	ENST00000489715.1	GBE1	ENSG00000114480	1,4-alpha-glucan branching enzyme 1 Source HGNC Symbol Acc HGNC 4180
C09	UPFH0554980	ENST00000644934.1	GPI	ENSG00000105220	glucose-6-phosphate isomerase Source HGNC Symbol Acc HGNC 4458
C10	UPFH1132433	ENST00000323798.8	GYS1	ENSG00000104812	glycogen synthase 1 Source HGNC Symbol Acc HGNC 4706
		ENST00000394		ENSG00000	hypoxia inducible factor 1 subunit alpha Source HGNC Symbol Acc HGNC

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH1132447	997.5	HIF1A	100644	4910
C12	UPFH0045640	ENST00000528044.1	HIF1AN	ENSG00000166135	hypoxia inducible factor 1 subunit alpha inhibitor Source HGNC Symbol Acc HGNC 17113
D01	UPFH0406737	ENST00000528563.5	HIF3A	ENSG00000124440	hypoxia inducible factor 3 subunit alpha Source HGNC Symbol Acc HGNC 15825
D02	UPFH1132910	ENST00000409174.1	HK2	ENSG00000159399	hexokinase 2 Source HGNC Symbol Acc HGNC 4923
D03	UPFH0433285	ENST00000216117.9	HMOX1	ENSG00000100292	heme oxygenase 1 Source HGNC Symbol Acc HGNC 5013
D04	UPFH0223088	ENST00000372920.1	HNF4A	ENSG00000101076	hepatocyte nuclear factor 4 alpha Source HGNC Symbol Acc HGNC 5024
D05	UPFH1125287	ENST00000376377.2	IER3	ENSG00000137331	immediate early response 3 Source HGNC Symbol Acc HGNC 5392
D06	UPFH1132893	ENST00000275521.10	IGFBP3	ENSG00000146674	insulin like growth factor binding protein 3 Source HGNC Symbol Acc HGNC 5472
D07	UPFH0060225	ENST00000585429.1	JMJD6	ENSG00000070495	jumonji domain containing 6, arginine demethylase and lysine hydroxylase Source HGNC Symbol Acc HGNC 19355
D08	UPFH1132517	ENST00000422447.8	LDHA	ENSG00000134333	lactate dehydrogenase A Source HGNC Symbol Acc HGNC 6535
D09	UPFH0280613	ENST00000556438.6	LGALS3	ENSG00000131981	galectin 3 Source HGNC Symbol Acc HGNC 6563
D10	UPFH1132522	ENST00000231004.5	LOX	ENSG00000113083	lysyl oxidase Source HGNC Symbol Acc HGNC 6664
D11	UPFH1132532	ENST00000399503.4	MAP3K1	ENSG00000095015	mitogen-activated protein kinase kinase kinase 1 Source HGNC Symbol Acc HGNC 6848
D12	UPFH1132915	ENST00000436117.2	MET	ENSG00000105976	MET proto-oncogene, receptor tyrosine kinase Source HGNC Symbol Acc HGNC 7029
E01	UPFH1132548	ENST00000215754.8	MIF	ENSG00000240972	macrophage migration inhibitory factor Source HGNC Symbol Acc HGNC 7097
E02	UPFH0367626	ENST00000372330.3	MMP9	ENSG00000100985	matrix metallopeptidase 9 Source HGNC Symbol Acc HGNC 7176
E03	UPFH0078952	ENST00000651866.1	MXI1	ENSG00000119950	MAX interactor 1, dimerization protein Source HGNC Symbol Acc HGNC 7534
E04	UPFH0075972	ENST00000463871.1	NAMPT	ENSG00000105835	nicotinamide phosphoribosyltransferase Source HGNC Symbol Acc HGNC 30092
E05	UPFH0385216	ENST00000406961.5	NCOA1	ENSG00000084676	nuclear receptor coactivator 1 Source HGNC Symbol Acc HGNC 7668
E06	UPFH0034532	ENST00000518480.5	NDRG1	ENSG00000104419	N-myc downstream regulated 1 Source HGNC Symbol Acc HGNC 7679
E07	UPFH1132828	ENST00000226574.9	NFKB1	ENSG00000109320	nuclear factor kappa B subunit 1 Source HGNC Symbol Acc HGNC 7794
E08	UPFH1132897	ENST00000297494.8	NOS3	ENSG00000164867	nitric oxide synthase 3 Source HGNC Symbol Acc HGNC 7876
E09	UPFH0581844	ENST00000405333.5	ODC1	ENSG00000115758	ornithine decarboxylase 1 Source HGNC Symbol Acc HGNC 8109
E10	UPFH0006326	ENST00000263556.3	P4HA1	ENSG00000122884	prolyl 4-hydroxylase subunit alpha 1 Source HGNC Symbol Acc HGNC 8546
E11	UPFH0049709	ENST00000476482.1	P4HB	ENSG00000185624	prolyl 4-hydroxylase subunit beta Source HGNC Symbol Acc HGNC 8548
E12	UPFH0435270	ENST00000410055.5	PDK1	ENSG00000152256	pyruvate dehydrogenase kinase 1 Source HGNC Symbol Acc HGNC 8809
F01	UPFH0100494	ENST00000581395.5	PER1	ENSG00000179094	period circadian regulator 1 Source NCBI gene Acc 5187
F02	UPFH0557316	ENST00000379785.5	PFKFB3	ENSG00000170525	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 3 Source HGNC Symbol Acc HGNC 8874
F03	UPFH0388427	ENST00000232375.8	PFKFB4	ENSG00000114268	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 4 Source HGNC Symbol Acc HGNC 8875
F04	UPFH1132615	ENST00000349048.9	PFKL	ENSG00000141959	phosphofructokinase, liver type Source HGNC Symbol Acc HGNC 8876
F05	UPFH0401094	ENST00000381075.6	PFKP	ENSG00000067057	phosphofructokinase, platelet Source HGNC Symbol Acc HGNC 8878
F06	UPFH0049273	ENST00000467867.1	PGAM1	ENSG00000171314	phosphoglycerate mutase 1 Source HGNC Symbol Acc HGNC 8888
F07	UPFH1132616	ENST00000555567.6	PGF	ENSG00000119630	placental growth factor Source HGNC Symbol Acc HGNC 8893
F08	UPFH1132617	ENST00000373316.5	PGK1	ENSG00000102144	phosphoglycerate kinase 1 Source HGNC Symbol Acc HGNC 8896
F09	UPFH0211822	ENST00000479509.1	PIM1	ENSG00000137193	Pim-1 proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 8986
F10	UPFH0066181	ENST00000319622.10	PKM	ENSG00000067225	pyruvate kinase M1/2 Source HGNC Symbol Acc HGNC 9021

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH1132831	ENST00000446342.5	PLAU	ENSG00000122861	plasminogen activator, urokinase Source HGNC Symbol Acc HGNC 9052
F12	UPFH0270480	ENST00000504938.1	RBPJ	ENSG00000168214	recombination signal binding protein for immunoglobulin kappa J region Source HGNC Symbol Acc HGNC 5724
G01	UPFH0420763	ENST00000640699.1	RUVBL2	ENSG00000183207	RuvB like AAA ATPase 2 Source HGNC Symbol Acc HGNC 10475
G02	UPFH0384736	ENST00000223095.4	SERPINE1	ENSG00000106366	serpin family E member 1 Source HGNC Symbol Acc HGNC 8583
G03	UPFH0287384	ENST00000578684.5	SLC16A3	ENSG00000141526	solute carrier family 16 member 3 Source HGNC Symbol Acc HGNC 10924
G04	UPFH0225912	ENST00000426263.8	SLC2A1	ENSG00000117394	solute carrier family 2 member 1 Source HGNC Symbol Acc HGNC 11005
G05	UPFH0576721	ENST00000544291.1	SLC2A3	ENSG00000059804	solute carrier family 2 member 3 Source HGNC Symbol Acc HGNC 11007
G06	UPFH0269367	ENST00000360110.9	TFRC	ENSG00000072274	transferrin receptor Source HGNC Symbol Acc HGNC 11763
G07	UPFH0565795	ENST00000269305.8	TP53	ENSG00000141510	tumor protein p53 Source HGNC Symbol Acc HGNC 11998
G08	UPFH1132737	ENST00000229270.8	TPI1	ENSG00000111669	triosephosphate isomerase 1 Source HGNC Symbol Acc HGNC 12009
G09	UPFH0343233	ENST00000582401.5	TXNIP	ENSG00000265972	thioredoxin interacting protein Source HGNC Symbol Acc HGNC 16952
G10	UPFH0179094	ENST00000379134.7	USF2	ENSG00000105698	upstream transcription factor 2, c-fos interacting Source HGNC Symbol Acc HGNC 12594
G11	UPFH0294771	ENST00000492324.1	VDAC1	ENSG00000213585	voltage dependent anion channel 1 Source HGNC Symbol Acc HGNC 12669
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.

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