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

Rat Hypoxia Signaling Pathway

Cat. no. 249955 UPRN-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	Bhlhe40	Blm	Bnip3	Bnip3l
B	Btg1	Car9	Ccng2	Cdkn2a	Cops5	Ctsa	Ddit4	Dnajc5	Edn1	Egln1	Egln2	Egr1
C	Eif4ebp1	Eno1	Epo	Ero1a	F10	F3	Fos	Gpi	Gys1	Hif1a	Hif1an	Hif3a
D	Hk2	Hmox1	Hnf4a	Ier3	Igfbp3	Jmjd6	Aldoc	Lgals3	Atr	Lox	Map3k1	Met
E	LOC103694877	Mmp9	Mxi1	Nampt	Ndrg1	Nfkb1	Nos3	Odc1	P4ha1	P4hb	Pdk1	Per1
F	Pfkfb3	LOC100911725	Pfkl	Pfkp	Pgam1	Pgf	Pgk1	Pgm2	Pim1	Pkm	Plau	Rbpjl
G	Ruvbl2	Serpine1	Slc16a3	Slc2a1	LOC100909595	Tfrc	Tp53	Tpi1	Txnip	Usf2	Vdac1	Vegfa
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFR1061154	ENSRNOT00000036718.1	Adm	ENSRNOG00000027030	adrenomedullin Source RGD Symbol Acc 2047
A02	UPFR1018684	ENSRNOT00000003966.3	Adora2b	ENSRNOG00000002922	adenosine A2B receptor Source RGD Symbol Acc 2050
A03	UPFR1020602	ENSRNOT00000088473.1	Aldoa	ENSRNOG00000052802	aldolase, fructose-bisphosphate A Source RGD Symbol Acc 2089
A04	UPFR1032714	ENSRNOT00000010031.6	Angptl4	ENSRNOG00000007545	angiopoietin-like 4 Source RGD Symbol Acc 735058
A05	UPFR1024391	ENSRNOT00000039909.4	Ankrd37	ENSRNOG00000031335	ankyrin repeat domain 37 Source RGD Symbol Acc 1565715
A06	UPFR1119904	ENSRNOT00000038677.5	Anxa2	ENSRNOG00000010362	annexin A2 Source RGD Symbol Acc 621170
A07	UPFR1104048	ENSRNOT00000087958.1	Apex1	ENSRNOG00000009663	apurinic/apyrimidinic endodeoxyribonuclease 1 Source RGD Symbol Acc 2126
A08	UPFR1041304	ENSRNOT00000044738.4	Arnt	ENSRNOG00000031174	aryl hydrocarbon receptor nuclear translocator Source RGD Symbol Acc 2153
A09	UPFR1015868	ENSRNOT00000009563.2	Bhlhe40	ENSRNOG00000007152	basic helix-loop-helix family, member e40 Source RGD Symbol Acc 68439
A10	UPFR1014979	ENSRNOT00000015065.7	Blm	ENSRNOG00000011213	BLM RecQ like helicase Source RGD Symbol Acc 1308810
A11	UPFR1105806	ENSRNOT00000023477.6	Bnip3	ENSRNOG00000017243	BCL2 interacting protein 3 Source RGD Symbol Acc 620800
A12	UPFR1115436	ENSRNOT00000014798.5	Bnip3l	ENSRNOG00000009820	BCL2 interacting protein 3 like Source RGD Symbol Acc 621354
B01	UPFR1118162	ENSRNOT00000005910.4	Btg1	ENSRNOG00000004284	BTG anti-proliferation factor 1 Source RGD Symbol Acc 2224
B02	UPFR1102120	ENSRNOT00000023060.5	Car9	ENSRNOG00000017073	carbonic anhydrase 9 Source RGD Symbol Acc 1306426
B03	UPFR1014566	ENSRNOT00000002876.5	Ccng2	ENSRNOG00000002089	cyclin G2 Source RGD Symbol Acc 1305002
B04	UPFR1104432	ENSRNOT00000079251.1	Cdkn2a	ENSRNOG00000059837	cyclin-dependent kinase inhibitor 2A Source RGD Symbol Acc 2323
B05	UPFR1062556	ENSRNOT00000008877.6	Cops5	ENSRNOG00000006499	COP9 signalosome subunit 5 Source RGD Symbol Acc 1310301
B06	UPFR1099510	ENSRNOT00000066028.1	Ctsa	ENSRNOG00000015857	cathepsin A Source RGD Symbol Acc 1309070
B07	UPFR1042623	ENSRNOT00000085026.1	Ddit4	ENSRNOG00000057078	DNA-damage-inducible transcript 4 Source RGD Symbol Acc 621731
B08	UPFR1111951	ENSRNOT00000020581.3	Dnajc5	ENSRNOG00000015202	DnaJ heat shock protein family (Hsp40) member C5 Source RGD Symbol Acc 620516
B09	UPFR1035851	ENSRNOT00000019361.2	Edn1	ENSRNOG00000014361	endothelin 1 Source RGD Symbol Acc 2532
B10	UPFR1097483	ENSRNOT00000026767.7	Egln1	ENSRNOG00000019773	egl-9 family hypoxia-inducible factor 1 Source RGD Symbol Acc 631375
B11	UPFR1117313	ENSRNOT00000028434.6	Egln2	ENSRNOG00000020947	egl-9 family hypoxia-inducible factor 2 Source RGD Symbol Acc 631376
B12	UPFR1034050	ENSRNOT00000026303.4	Egr1	ENSRNOG00000019422	early growth response 1 Source RGD Symbol Acc 2544
C01	UPFR1083445	ENSRNOT00000016885.5	Eif4ebp1	ENSRNOG00000012582	eukaryotic translation initiation factor 4E binding protein 1 Source RGD Symbol Acc 620259
C02	UPFR1036903	ENSRNOT00000024106.7	Eno1	ENSRNOG00000017895	enolase 1 Source RGD Symbol Acc 2553
C03	UPFR1023629	ENSRNOT00000001914.4	Epo	ENSRNOG00000001412	erythropoietin Source RGD Symbol Acc 2559
C04	UPFR1077716	ENSRNOT00000009404.6	Ero1a	ENSRNOG00000006462	endoplasmic reticulum oxidoreductase 1 alpha Source RGD Symbol Acc 621713
C05	UPFR1074080	ENSRNOT00000026677.6	F10	ENSRNOG00000033444	coagulation factor X Source RGD Symbol Acc 61850
C06	UPFR1038904	ENSRNOT00000015836.5	F3	ENSRNOG00000011800	coagulation factor III, tissue factor Source RGD Symbol Acc 2587
C07	UPFR1045359	ENSRNOT00000010712.3	Fos	ENSRNOG00000008015	Fos proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2626
C08	UPFR1020266	ENSRNOT00000032613.4	Gpi	ENSRNOG00000023150	glucose-6-phosphate isomerase Source RGD Symbol Acc 2727
C09	UPFR1022867	ENSRNOT00000028271.3	Gys1	ENSRNOG00000020812	glycogen synthase 1 Source RGD Symbol Acc 1589798
C10	UPFR1061095	ENSRNOT00000049725.3	Hif1a	ENSRNOG00000008292	hypoxia inducible factor 1 subunit alpha Source RGD Symbol Acc 61928
		ENSRNOT00000		ENSRNOG00	hypoxia inducible factor 1 subunit alpha inhibitor Source RGD Symbol Acc

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1036873	019070.5	Hif1an	000014234	1308281
C12	UPFR1068476	ENSRNOT00000023490.3	Hif3a	ENSRNOG00000017198	hypoxia inducible factor 3 subunit alpha Source RGD Symbol Acc 70332
D01	UPFR1093740	ENSRNOT00000008813.3	Hk2	ENSRNOG00000006116	hexokinase 2 Source RGD Symbol Acc 2797
D02	UPFR1040868	ENSRNOT00000019192.6	Hmox1	ENSRNOG00000014117	heme oxygenase 1 Source RGD Symbol Acc 2806
D03	UPFR1098273	ENSRNOT00000089893.1	Hnf4a	ENSRNOG00000008895	hepatocyte nuclear factor 4, alpha Source RGD Symbol Acc 2810
D04	UPFR1096328	ENSRNOT00000080822.1	Ier3	ENSRNOG00000000827	immediate early response 3 Source RGD Symbol Acc 1303321
D05	UPFR1013429	ENSRNOT00000088355.1	Igfbp3	ENSRNOG00000061910	insulin-like growth factor binding protein 3 Source RGD Symbol Acc 2874
D06	UPFR1115355	ENSRNOT00000064671.2	Jmjd6	ENSRNOG00000000250	jumonji domain containing 6, arginine demethylase and lysine hydroxylase Source RGD Symbol Acc 1305395
D07	UPFR1060770	ENSRNOT00000015535.8	Aldoc	ENSRNOG00000011452	aldolase, fructose-bisphosphate C Source RGD Symbol Acc 2091
D08	UPFR1085057	ENSRNOT00000014216.5	Lgals3	ENSRNOG00000010645	galectin 3 Source RGD Symbol Acc 69356
D09	UPFR1077171	ENSRNOT00000049967.5	Atr	ENSRNOG00000010027	ATR serine/threonine kinase Source RGD Symbol Acc 1305796
D10	UPFR1106429	ENSRNOT00000083881.1	Lox	ENSRNOG00000014426	lysyl oxidase Source RGD Symbol Acc 3015
D11	UPFR1044671	ENSRNOT00000017968.3	Map3k1	ENSRNOG00000013177	mitogen-activated protein kinase kinase kinase 1 Source RGD Symbol Acc 620966
D12	UPFR1071342	ENSRNOT00000086902.1	Met	ENSRNOG00000052745	MET proto-oncogene, receptor tyrosine kinase Source RGD Symbol Acc 3082
E01	UPFR1126542	ENSRNOT00000008608.4	LOC103694877	ENSRNOG00000006589	macrophage migration inhibitory factor Source RGD Symbol Acc 621163
E02	UPFR1032957	ENSRNOT00000023965.3	Mmp9	ENSRNOG00000017539	matrix metallopeptidase 9 Source RGD Symbol Acc 621320
E03	UPFR1115645	ENSRNOT00000042822.4	Mxi1	ENSRNOG00000034078	MAX interactor 1, dimerization protein Source RGD Symbol Acc 3128
E04	UPFR1037521	ENSRNOT00000013043.6	Nampt	ENSRNOG00000009754	nicotinamide phosphoribosyltransferase Source RGD Symbol Acc 631365
E05	UPFR1039853	ENSRNOT00000093459.1	Ndrg1	ENSRNOG00000007393	N-myc downstream regulated 1 Source RGD Symbol Acc 1307303
E06	UPFR1116688	ENSRNOT00000036838.4	Nfkb1	ENSRNOG00000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
E07	UPFR1032783	ENSRNOT00000013058.4	Nos3	ENSRNOG00000009348	nitric oxide synthase 3 Source RGD Symbol Acc 3186
E08	UPFR1021756	ENSRNOT00000079185.1	Odc1	ENSRNOG00000005424	ornithine decarboxylase 1 Source RGD Symbol Acc 3227
E09	UPFR1077220	ENSRNOT00000070897.1	P4ha1	ENSRNOG00000050655	prolyl 4-hydroxylase subunit alpha 1 Source RGD Symbol Acc 621000
E10	UPFR1096467	ENSRNOT00000054958.2	P4hb	ENSRNOG00000036689	prolyl 4-hydroxylase subunit beta Source RGD Symbol Acc 3244
E11	UPFR1014167	ENSRNOT00000002072.6	Pdk1	ENSRNOG00000001517	pyruvate dehydrogenase kinase 1 Source RGD Symbol Acc 69427
E12	UPFR1058160	ENSRNOT00000057136.3	Per1	ENSRNOG00000007387	period circadian regulator 1 Source RGD Symbol Acc 727863
F01	UPFR1019335	ENSRNOT00000068354.3	Pfkfb3	ENSRNOG00000018911	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 3 Source RGD Symbol Acc 619776
F02	UPFR1066131	ENSRNOT00000091573.1	LOC100911725	ENSRNOG00000020656	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 4-like Source RGD Symbol Acc 6491338
F03	UPFR1094920	ENSRNOT00000001625.5	Pfkl	ENSRNOG00000001214	phosphofructokinase, liver type Source RGD Symbol Acc 3311
F04	UPFR1026177	ENSRNOT00000023252.7	Pfkp	ENSRNOG00000017163	phosphofructokinase, platelet Source RGD Symbol Acc 61893
F05	UPFR1045943	ENSRNOT00000071965.2	Pgam1	ENSRNOG00000050585	phosphoglycerate mutase 1 Source RGD Symbol Acc 3312
F06	UPFR1118244	ENSRNOT00000007790.5	Pgf	ENSRNOG00000005650	placental growth factor Source RGD Symbol Acc 619850
F07	UPFR1132956	ENSRNOT00000077604.1	Pgk1	ENSRNOG00000058249	phosphoglycerate kinase 1 Source RGD Symbol Acc 619878
F08	UPFR1017399	ENSRNOT00000002977.5	Pgm2	ENSRNOG00000002185	phosphoglucomutase 2 Source RGD Symbol Acc 1306061
F09	UPFR1098497	ENSRNOT00000000637.5	Pim1	ENSRNOG00000000529	Pim-1 proto-oncogene, serine/threonine kinase Source RGD Symbol Acc 3330
F10	UPFR1105089	ENSRNOT00000015332.7	Pkm	ENSRNOG00000011329	pyruvate kinase M1/2 Source RGD Symbol Acc 3337

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1088915	ENSRNOT00000014273.5	Plau	ENSRNOG00000010516	plasminogen activator, urokinase Source RGD Symbol Acc 3343
F12	UPFR1038422	ENSRNOT00000019127.5	Rbpjl	ENSRNOG00000026295	recombination signal binding protein for immunoglobulin kappa J region-like Source RGD Symbol Acc 1304786
G01	UPFR1023314	ENSRNOT00000028217.6	Ruvbl2	ENSRNOG00000020793	RuvB-like AAA ATPase 2 Source RGD Symbol Acc 1306509
G02	UPFR1051798	ENSRNOT00000001916.2	Serpine1	ENSRNOG00000001414	serpin family E member 1 Source RGD Symbol Acc 3249
G03	UPFR1085116	ENSRNOT00000054939.3	Slc16a3	ENSRNOG00000036677	solute carrier family 16 member 3 Source RGD Symbol Acc 620603
G04	UPFR1052096	ENSRNOT00000083700.1	Slc2a1	ENSRNOG00000007284	solute carrier family 2 member 1 Source RGD Symbol Acc 3704
G05	UPFR1014889	ENSRNOT00000085447.1	LOC100909595	ENSRNOG00000008376	solute carrier family 2 member 3 Source RGD Symbol Acc 3706
G06	UPFR1017126	ENSRNOT00000002407.5	Tfrc	ENSRNOG00000001766	transferrin receptor Source RGD Symbol Acc 70488
G07	UPFR1095007	ENSRNOT00000085115.1	Tp53	ENSRNOG00000010756	tumor protein p53 Source RGD Symbol Acc 3889
G08	UPFR1112882	ENSRNOT00000020647.6	Tpi1	ENSRNOG00000015290	triosephosphate isomerase 1 Source RGD Symbol Acc 3896
G09	UPFR1099909	ENSRNOT00000028793.6	Txnip	ENSRNOG00000021201	thioredoxin interacting protein Source RGD Symbol Acc 620886
G10	UPFR1067975	ENSRNOT00000087381.1	Usf2	ENSRNOG00000053725	upstream transcription factor 2, c-fos interacting Source RGD Symbol Acc 620975
G11	UPFR1102476	ENSRNOT00000008477.5	Vdac1	ENSRNOG00000006375	voltage-dependent anion channel 1 Source RGD Symbol Acc 621575
G12	UPFR1117908	ENSRNOT00000026559.5	Vegfa	ENSRNOG00000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
H01	UPFR1132952	ENSRNOT00000080216.1	Actb	ENSRNOG00000034254	actin, beta Source RGD Symbol Acc 628837
H02	UPFR1132953	ENSRNOT00000023017.5	B2m	ENSRNOG00000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	UPFR1132959	ENSRNOT00000065935.3	Hprt1	ENSRNOG00000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	UPFR1018740	ENSRNOT00000017468.2	Ldha	ENSRNOG00000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	UPFR1132958	ENSRNOT00000018820.5	Rplp1	ENSRNOG00000013874	ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774
H06	UPFR1126610	UPL_RGDC	RGDC	UPL_RGDC	Rat 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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