

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

## Rat Angiogenesis

Cat. no. 249955 UPRN-024ZA

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 (96-well): QuantiNova LNA Probe PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. 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	Akt1	Ang2	Angpt1	Angpt2	Anpep	AABR0705842 2.1	Cd2	Cdh5	Col18a1	Col4a3	Ccn2	Cxcl1
B	Cxcl2	Cxcl9	Edn1	EfnA1	Egf	Eng	Epas1	ErbB2	F2	F3	Fgf1	Fgf2
C	Fgf6	Fgfr3	Vegfd	Fit1	Fn1	Hgf	Hif1α	Id1	Ifna5	Ifnb1	Ifng	Igf1
D	Il1b	Il6	Itga5	Itgav	Itgb3	Jag1	Kdr	Cnmd	Lep	Mapk14	Mdk	Mmp14
E	Mmp19	Mmp2	Mmp3	Mmp9	Nos3	Nrp1	Nrp2	Pdgfa	Pdgfb	Pdgfra	Pgf	Plau
F	Plg	Plgs1	Plk2	S1pr1	Serpina5	Serpine1	Serpinf1	Sphk1	Tek	Tgfa	Tgfb1	Tgfb2
G	Tgfb3	Tgfb1	Thbs1	Tie1	Timp1	Timp2	Timp3	LOC1036943 80	Tymp	Vegfa	Vegfb	Vegfc
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	UPFR1083196	ENSRNOT00000031164.3	Akt1	ENSRNOG0000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A02	UPFR1054815	ENSRNOT00000032536.4	Ang2	ENSRNOG0000025562	angiogenin, ribonuclease A family, member 2 Source RGD Symbol Acc 1359373
A03	UPFR1072829	ENSRNOT00000007979.6	Angpt1	ENSRNOG0000005854	angiopoietin 1 Source RGD Symbol Acc 628896
A04	UPFR1036335	ENSRNOT00000022774.6	Angpt2	ENSRNOG0000016696	angiopoietin 2 Source RGD Symbol Acc 621861
A05	UPFR1016919	ENSRNOT00000020002.5	Anpep	ENSRNOG0000014610	alanyl aminopeptidase, membrane Source RGD Symbol Acc 2991
A06	UPFR1031474	ENSRNOT00000076127.2	AABR0705	ENSRNOG0000029450	
A07	UPFR1014050	ENSRNOT00000009448.3	Ccl2	ENSRNOG0000007159	C-C motif chemokine ligand 2 Source RGD Symbol Acc 3645
A08	UPFR1038288	ENSRNOT00000017983.6	Cdh5	ENSRNOG0000013324	cadherin 5 Source RGD Symbol Acc 1307370
A09	UPFR1110277	ENSRNOT00000045315.4	Col18a1	ENSRNOG0000001229	collagen type XVIII alpha 1 chain Source RGD Symbol Acc 70936
A10	UPFR1065434	ENSRNOT00000020669.5	Col4a3	ENSRNOG0000015365	collagen type IV alpha 3 chain Source RGD Symbol Acc 71085
A11	UPFR1047569	ENSRNOT00000089196.1	Ccn2	ENSRNOG0000015036	cellular communication network factor 2 Source RGD Symbol Acc 621392
A12	UPFR1056296	ENSRNOT00000003778.3	Cxcl1	ENSRNOG0000002802	C-X-C motif chemokine ligand 1 Source RGD Symbol Acc 619869
B01	UPFR1121790	ENSRNOT00000003745.6	Cxcl2	ENSRNOG0000002792	C-X-C motif chemokine ligand 2 Source RGD Symbol Acc 70069
B02	UPFR1089821	ENSRNOT00000003082.7	Cxcl9	ENSRNOG0000022242	C-X-C motif chemokine ligand 9 Source RGD Symbol Acc 628798
B03	UPFR1035851	ENSRNOT00000019361.2	Edn1	ENSRNOG0000014361	endothelin 1 Source RGD Symbol Acc 2532
B04	UPFR1065264	ENSRNOT00000027920.5	Efna1	ENSRNOG0000020573	ephrin A1 Source RGD Symbol Acc 620388
B05	UPFR1045222	ENSRNOT00000087007.1	Egf	ENSRNOG0000053979	epidermal growth factor Source RGD Symbol Acc 2542
B06	UPFR1081956	ENSRNOT00000071801.2	Eng	ENSRNOG0000050190	endoglin Source RGD Symbol Acc 1593188
B07	UPFR1089448	ENSRNOT00000080507.1	Epas1	ENSRNOG0000021318	endothelial PAS domain protein 1 Source RGD Symbol Acc 68404
B08	UPFR1024636	ENSRNOT00000009114.7	ErbB2	ENSRNOG0000006450	erb-b2 receptor tyrosine kinase 2 Source RGD Symbol Acc 2561
B09	UPFR1087878	ENSRNOT00000022233.5	F2	ENSRNOG0000016325	coagulation factor II Source RGD Symbol Acc 61996
B10	UPFR1038904	ENSRNOT00000015836.5	F3	ENSRNOG0000011800	coagulation factor III, tissue factor Source RGD Symbol Acc 2587
B11	UPFR1031298	ENSRNOT00000018577.3	Fgf1	ENSRNOG0000013867	fibroblast growth factor 1 Source RGD Symbol Acc 2605
B12	UPFR1033121	ENSRNOT00000023388.5	Fgf2	ENSRNOG0000017392	fibroblast growth factor 2 Source RGD Symbol Acc 2609
C01	UPFR1036673	ENSRNOT00000081426.1	Fgf6	ENSRNOG0000053662	fibroblast growth factor 6 Source RGD Symbol Acc 620130
C02	UPFR1044008	ENSRNOT00000023144.6	Fgfr3	ENSRNOG0000016818	fibroblast growth factor receptor 3 Source RGD Symbol Acc 620714
C03	UPFR1115126	ENSRNOT00000068601.2	Vegfd	ENSRNOG0000003587	vascular endothelial growth factor D Source RGD Symbol Acc 620695
C04	UPFR1070633	ENSRNOT00000001248.3	Fh1	ENSRNOG0000000940	FMS-related tyrosine kinase 1 Source RGD Symbol Acc 2621
C05	UPFR1089380	ENSRNOT00000057585.4	Fn1	ENSRNOG0000014288	fibronectin 1 Source RGD Symbol Acc 2624
C06	UPFR1076642	ENSRNOT00000009763.5	Hgf	ENSRNOG0000007027	hepatocyte growth factor Source RGD Symbol Acc 2794
C07	UPFR1061095	ENSRNOT00000049725.3	Hif1a	ENSRNOG0000008292	hypoxia inducible factor 1 subunit alpha Source RGD Symbol Acc 61928
C08	UPFR1039525	ENSRNOT00000029660.5	Id1	ENSRNOG0000021750	inhibitor of DNA binding 1, HLH protein Source RGD Symbol Acc 2858
C09	UPFR1014391	ENSRNOT00000049705.1	Ifna5	ENSRNOG0000031046	interferon, alpha 5 Source RGD Symbol Acc 1359312
C10	UPFR1098156	ENSRNOT00000008224.2	Ifnb1	ENSRNOG0000006268	interferon beta 1 Source RGD Symbol Acc 2865
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1084134	009919.2	Ifng	000007468	interferon gamma Source RGD Symbol Acc 2866
C12	UPFR1050099	ENSRNOT00000038780.6	Igf1	ENSRNOG0000004517	insulin-like growth factor 1 Source RGD Symbol Acc 2868
D01	UPFR1121351	ENSRNOT00000006308.4	Il1b	ENSRNOG0000004649	interleukin 1 beta Source RGD Symbol Acc 2891
D02	UPFR1098910	ENSRNOT00000013732.6	Il6	ENSRNOG0000010278	interleukin 6 Source RGD Symbol Acc 2901
D03	UPFR1023329	ENSRNOT00000087748.1	Itga5	ENSRNOG0000057451	integrin subunit alpha 5 Source RGD Symbol Acc 2925
D04	UPFR1097241	ENSRNOT00000006961.7	Itgav	ENSRNOG0000004912	integrin subunit alpha V Source RGD Symbol Acc 1310613
D05	UPFR1016531	ENSRNOT00000073350.2	Itgb3	ENSRNOG0000048449	integrin subunit beta 3 Source RGD Symbol Acc 628868
D06	UPFR1082062	ENSRNOT00000010638.7	Jag1	ENSRNOG0000007443	jagged 1 Source RGD Symbol Acc 2937
D07	UPFR1041145	ENSRNOT00000085089.1	Kdr	ENSRNOG0000046829	kinase insert domain receptor Source RGD Symbol Acc 2965
D08	UPFR1079506	ENSRNOT00000017400.3	Cnmd	ENSRNOG0000012821	chondromodulin Source RGD Symbol Acc 620176
D09	UPFR1089630	ENSRNOT00000071926.1	Lep	ENSRNOG0000045797	leptin Source RGD Symbol Acc 3000
D10	UPFR1036984	ENSRNOT00000000617.8	Mapk14	ENSRNOG0000000513	mitogen activated protein kinase 14 Source RGD Symbol Acc 70496
D11	UPFR1113183	ENSRNOT00000033978.3	Mdk	ENSRNOG0000017560	midkine Source RGD Symbol Acc 69073
D12	UPFR1097779	ENSRNOT00000075610.2	Mmp14	ENSRNOG0000010947	matrix metalloproteinase 14 Source RGD Symbol Acc 620198
E01	UPFR1101648	ENSRNOT00000008909.7	Mmp19	ENSRNOG0000006778	matrix metalloproteinase 19 Source RGD Symbol Acc 1311376
E02	UPFR1080151	ENSRNOT00000022679.6	Mmp2	ENSRNOG0000016695	matrix metalloproteinase 2 Source RGD Symbol Acc 621316
E03	UPFR1017988	ENSRNOT00000012310.6	Mmp3	ENSRNOG0000032626	matrix metalloproteinase 3 Source RGD Symbol Acc 621317
E04	UPFR1032957	ENSRNOT00000023965.3	Mmp9	ENSRNOG0000017539	matrix metalloproteinase 9 Source RGD Symbol Acc 621320
E05	UPFR1032783	ENSRNOT00000013058.4	Nos3	ENSRNOG0000009348	nitric oxide synthase 3 Source RGD Symbol Acc 3186
E06	UPFR1025300	ENSRNOT00000080465.1	Nrp1	ENSRNOG0000010744	neuropilin 1 Source RGD Symbol Acc 621588
E07	UPFR1067456	ENSRNOT00000042562.3	Nrp2	ENSRNOG0000031232	neuropilin 2 Source RGD Symbol Acc 621442
E08	UPFR1035905	ENSRNOT00000042117.6	Pdgfa	ENSRNOG0000001312	platelet derived growth factor subunit A Source RGD Symbol Acc 3282
E09	UPFR1088903	ENSRNOT00000023196.5	Pdgfb	ENSRNOG0000017197	platelet derived growth factor subunit B Source RGD Symbol Acc 3283
E10	UPFR1089489	ENSRNOT00000003077.5	Pdgfra	ENSRNOG0000002244	platelet derived growth factor receptor alpha Source RGD Symbol Acc 3284
E11	UPFR1118244	ENSRNOT00000007790.5	Pgf	ENSRNOG0000005650	placental growth factor Source RGD Symbol Acc 619850
E12	UPFR1088915	ENSRNOT00000014273.5	Plau	ENSRNOG0000010516	plasminogen activator, urokinase Source RGD Symbol Acc 3343
F01	UPFR1070729	ENSRNOT00000023368.5	Plg	ENSRNOG0000017223	plasminogen Source RGD Symbol Acc 619893
F02	UPFR1053064	ENSRNOT00000010218.5	Ptgs1	ENSRNOG0000007415	prostaglandin-endoperoxide synthase 1 Source RGD Symbol Acc 3439
F03	UPFR1115915	ENSRNOT00000011219.6	Plk2	ENSRNOG0000007916	protein tyrosine kinase 2 Source RGD Symbol Acc 3443
F04	UPFR1049908	ENSRNOT00000018318.3	S1pr1	ENSRNOG0000013683	sphingosine-1-phosphate receptor 1 Source RGD Symbol Acc 61958
F05	UPFR1103490	ENSRNOT00000003625.7	Serpib5	ENSRNOG0000002640	serpin family B member 5 Source RGD Symbol Acc 69342
F06	UPFR1051798	ENSRNOT00000001916.2	Serpine1	ENSRNOG0000001414	serpin family E member 1 Source RGD Symbol Acc 3249
F07	UPFR1094992	ENSRNOT00000004313.5	Serpinf1	ENSRNOG0000003172	serpin family F member 1 Source RGD Symbol Acc 631369
F08	UPFR1081482	ENSRNOT00000032163.5	Sphk1	ENSRNOG0000010626	sphingosine kinase 1 Source RGD Symbol Acc 620048
F09	UPFR1031924	ENSRNOT00000032248.3	Tek	ENSRNOG0000008587	TEK receptor tyrosine kinase Source RGD Symbol Acc 620980
F10	UPFR1060818	ENSRNOT00000057441.4	Tgfa	ENSRNOG0000016182	transforming growth factor alpha Source RGD Symbol Acc 3849

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1103881	ENSRNOT00000028051.4	Tgfb1	ENSRNOG0000020652	transforming growth factor, beta 1 Source RGD Symbol Acc 69051
F12	UPFR1046456	ENSRNOT00000087023.1	Tgfb2	ENSRNOG0000002418	transforming growth factor, beta 2 Source RGD Symbol Acc 70491
G01	UPFR1030751	ENSRNOT00000013516.5	Tgfb3	ENSRNOG0000009867	transforming growth factor, beta 3 Source RGD Symbol Acc 3851
G02	UPFR1035135	ENSRNOT00000081090.1	Tgfb1	ENSRNOG0000007036	transforming growth factor, beta receptor 1 Source RGD Symbol Acc 3852
G03	UPFR1104745	ENSRNOT00000083351.1	Thbs1	ENSRNOG0000045829	thrombospondin 1 Source RGD Symbol Acc 1588455
G04	UPFR1020058	ENSRNOT00000093097.1	Tie1	ENSRNOG0000020173	tyrosine kinase with immunoglobulin-like and EGF-like domains 1 Source RGD Symbol Acc 621642
G05	UPFR1060230	ENSRNOT00000013745.7	Timp1	ENSRNOG0000010208	TIMP metalloproteinase inhibitor 1 Source RGD Symbol Acc 621675
G06	UPFR1066754	ENSRNOT00000004290.4	Timp2	ENSRNOG0000003148	TIMP metalloproteinase inhibitor 2 Source RGD Symbol Acc 61312
G07	UPFR1107259	ENSRNOT00000005746.5	Timp3	ENSRNOG0000004303	TIMP metalloproteinase inhibitor 3 Source RGD Symbol Acc 3865
G08	UPFR1098022	ENSRNOT00000079677.1	LOC103694380	ENSRNOG000005156	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G09	UPFR1112605	ENSRNOT00000040541.4	Tymp	ENSRNOG0000032394	thymidine phosphorylase Source RGD Symbol Acc 1305756
G10	UPFR1117908	ENSRNOT00000026559.5	Vegfa	ENSRNOG0000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
G11	UPFR1063692	ENSRNOT00000050891.3	Vegfb	ENSRNOG0000021156	vascular endothelial growth factor B Source RGD Symbol Acc 619799
G12	UPFR1108264	ENSRNOT00000015529.4	Vegfc	ENSRNOG0000011416	vascular endothelial growth factor C Source RGD Symbol Acc 619800
H01	UPFR1132952	ENSRNOT00000080216.1	Actb	ENSRNOG0000034254	actin, beta Source RGD Symbol Acc 628837
H02	UPFR1132953	ENSRNOT00000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	UPFR1132959	ENSRNOT00000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	UPFR1018740	ENSRNOT00000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	UPFR1132958	ENSRNOT00000018820.5	Rplp1	ENSRNOG0000013874	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 $\mu$ 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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