

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

Rat Hedgehog Signaling Pathway

Cat. no. 249955 UPRN-078ZA

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 for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Bcl2	Bmp2	Bmp4	Bmp5	Bmp6	Bmp7	Bmp8a	Boc	Btrc	Npc1	Cdon	Csnk1a1
B	Csnk1e	Csnk1g1	Ctnnb1	Dchs1	Dhh	Disp1	Disp2	Erbp4	Fbxw11	Fgf9	Fgfr3	Fkbp8
C	Foxe1	Gli1	Gli2	Gli3	Grem1	Gsk3b	Hhat	Hhip	Irf52	Igf2	Ihh	Kctd11
D	Lats1	Lats2	Lrp2	Mapk1	Mdm2	Mob1b	Mts1	Nf2	Numb	LOC1009114 92	Pdgfra	Prkaca
E	Prkacb	Ptch1	Disp3	Rab23	Rassf4	Rumx2	Sfrp1	Shh	Shox2	Smo	Stk3	Sufu
F	Tp53	Vegfa	Wif1	Wnt1	Wnt10a	Wnt10b	Wnt11	Wnt16	Wnt2	Wnt2b	Wnt3	Wnt3a
G	Wnt4	Wnt5a	Wnt5b	Wnt6	Wnt7a	Wnt7b	Wnt8a	Wnt8b	Wnt9a	Wnt9b	Zic1	Zic2
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	UPFR1082998	ENSRNOT00000003768.2	Bcl2	ENSRNOG0000002791	BCL2, apoptosis regulator Source RGD Symbol Acc 2199
A02	UPFR1023820	ENSRNOT00000028904.4	Bmp2	ENSRNOG00000021276	bone morphogenetic protein 2 Source RGD Symbol Acc 2211
A03	UPFR1013450	ENSRNOT00000083268.1	Bmp4	ENSRNOG0000009694	bone morphogenetic protein 4 Source RGD Symbol Acc 2213
A04	UPFR1079381	ENSRNOT00000014846.5	Bmp5	ENSRNOG0000010917	bone morphogenetic protein 5 Source RGD Symbol Acc 1305979
A05	UPFR1048825	ENSRNOT00000018359.7	Bmp6	ENSRNOG0000013717	bone morphogenetic protein 6 Source RGD Symbol Acc 2214
A06	UPFR1105126	ENSRNOT00000084990.1	Bmp7	ENSRNOG0000053384	bone morphogenetic protein 7 Source RGD Symbol Acc 620743
A07	UPFR1055088	ENSRNOT00000045922.2	Bmp8a	ENSRNOG0000030155	bone morphogenetic protein 8a Source RGD Symbol Acc 1585858
A08	UPFR1039214	ENSRNOT00000002790.7	Boc	ENSRNOG0000002041	BOC cell adhesion associated, oncogene regulated Source RGD Symbol Acc 1304550
A09	UPFR1066655	ENSRNOT00000022426.7	Btrc	ENSRNOG0000016280	beta-transducin repeat containing E3 ubiquitin protein ligase Source RGD Symbol Acc 1359721
A10	UPFR1063124	ENSRNOT00000016167.7	Npc1	ENSRNOG0000012016	NPC intracellular cholesterol transporter 1 Source RGD Symbol Acc 628693
A11	UPFR1021608	ENSRNOT00000016248.4	Cdon	ENSRNOG0000011789	cell adhesion associated, oncogene regulated Source RGD Symbol Acc 708433
A12	UPFR1032693	ENSRNOT00000066133.3	Csnk1a1	ENSRNOG0000017106	casein kinase 1, alpha 1 Source RGD Symbol Acc 71098
B01	UPFR1108800	ENSRNOT00000018126.3	Csnk1e	ENSRNOG0000013076	casein kinase 1, epsilon Source RGD Symbol Acc 62045
B02	UPFR1040655	ENSRNOT00000042369.3	Csnk1g1	ENSRNOG0000016620	casein kinase 1, gamma 1 Source RGD Symbol Acc 621404
B03	UPFR1057605	ENSRNOT00000079085.1	Ctnnb1	ENSRNOG0000054172	catenin beta 1 Source RGD Symbol Acc 70487
B04	UPFR1083089	ENSRNOT00000042865.5	Dchs1	ENSRNOG0000031643	dachsous cadherin-related 1 Source RGD Symbol Acc 1309878
B05	UPFR1042478	ENSRNOT00000087327.1	Dhh	ENSRNOG0000053675	desert hedgehog signaling molecule Source RGD Symbol Acc 620711
B06	UPFR1062550	ENSRNOT00000004834.4	Disp1	ENSRNOG0000003635	dispatched RND transporter family member 1 Source RGD Symbol Acc 1307675
B07	UPFR1082185	ENSRNOT00000031231.5	Disp2	ENSRNOG0000026787	dispatched RND transporter family member 2 Source RGD Symbol Acc 1309569
B08	UPFR1023244	ENSRNOT00000019283.6	ErbB4	ENSRNOG0000014248	erb-b2 receptor tyrosine kinase 4 Source RGD Symbol Acc 620486
B09	UPFR1042626	ENSRNOT00000079698.1	Fbxw11	ENSRNOG0000004395	F-box and WD repeat domain containing 11 Source RGD Symbol Acc 1309121
B10	UPFR1020537	ENSRNOT00000015367.5	Fgf9	ENSRNOG0000011471	fibroblast growth factor 9 Source RGD Symbol Acc 2610
B11	UPFR1044008	ENSRNOT00000023144.6	Fgfr3	ENSRNOG0000016818	fibroblast growth factor receptor 3 Source RGD Symbol Acc 620714
B12	UPFR1091131	ENSRNOT00000077756.1	Fkbp8	ENSRNOG0000058359	FKBP prolyl isomerase 8 Source RGD Symbol Acc 1308670
C01	UPFR1065922	ENSRNOT00000012637.3	Foxe1	ENSRNOG0000023497	forkhead box E1 Source RGD Symbol Acc 621723
C02	UPFR1075414	ENSRNOT00000009803.7	Gli1	ENSRNOG0000025120	GLI family zinc finger 1 Source RGD Symbol Acc 621673
C03	UPFR1021484	ENSRNOT00000009963.6	Gli2	ENSRNOG0000007261	GLI family zinc finger 2 Source RGD Symbol Acc 1309270
C04	UPFR1075132	ENSRNOT00000081290.1	Gli3	ENSRNOG0000014395	GLI family zinc finger 3 Source RGD Symbol Acc 620272
C05	UPFR1094825	ENSRNOT00000037895.3	Grem1	ENSRNOG0000026053	gremlin 1, DAN family BMP antagonist Source RGD Symbol Acc 2359
C06	UPFR1109626	ENSRNOT00000077612.1	Gsk3b	ENSRNOG0000028833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
C07	UPFR1094419	ENSRNOT00000072729.3	Hhat	ENSRNOG0000003925	hedgehog acyltransferase Source RGD Symbol Acc 1311746
C08	UPFR1056218	ENSRNOT00000024616.7	Hhip	ENSRNOG0000018268	Hedgehog-interacting protein Source RGD Symbol Acc 1564108
C09	UPFR1061650	ENSRNOT00000078101.1	Ift52	ENSRNOG0000007692	intraflagellar transport 52 Source RGD Symbol Acc 1311004
C10	UPFR1085899	ENSRNOT00000089171.1	Igf2	ENSRNOG0000020369	insulin-like growth factor 2 Source RGD Symbol Acc 2870
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1064618	024419.4	lhh	000018059	Indian hedgehog signaling molecule Source RGD Symbol Acc 620021
C12	UPFR1047697	ENSRNOT00000020970.3	Kctd11	ENSRNOG0000015669	potassium channel tetramerization domain containing 11 Source RGD Symbol Acc 1307125
D01	UPFR1024896	ENSRNOT00000020098.7	Lats1	ENSRNOG0000014916	large tumor suppressor kinase 1 Source RGD Symbol Acc 1564085
D02	UPFR1017771	ENSRNOT00000087978.1	Lats2	ENSRNOG0000056343	large tumor suppressor kinase 2 Source RGD Symbol Acc 1305906
D03	UPFR1094021	ENSRNOT00000082624.1	Lrp2	ENSRNOG0000056184	LDL receptor related protein 2 Source RGD Symbol Acc 68407
D04	UPFR1055882	ENSRNOT00000002533.7	Mapk1	ENSRNOG0000001849	mitogen activated protein kinase 1 Source RGD Symbol Acc 70500
D05	UPFR1073822	ENSRNOT00000066767.2	Mdm2	ENSRNOG0000006304	MDM2 proto-oncogene Source RGD Symbol Acc 1305332
D06	UPFR1073550	ENSRNOT00000014650.5	Mob1b	ENSRNOG0000010996	MOB kinase activator 1B Source RGD Symbol Acc 1305114
D07	UPFR1077177	ENSRNOT00000011984.5	Mtss1	ENSRNOG0000009001	MTSS1, I-BAR domain containing Source RGD Symbol Acc 1309883
D08	UPFR1097057	ENSRNOT00000010690.5	Nf2	ENSRNOG0000007948	neurofibromin 2 Source RGD Symbol Acc 3169
D09	UPFR1040090	ENSRNOT00000042594.5	Numb	ENSRNOG0000009653	NUMB, endocytic adaptor protein Source RGD Symbol Acc 620107
D10	UPFR1102384	ENSRNOT00000074488.2	LOC100911492	ENSRNOG0000048322	orthodenticle homeobox 2 Source RGD Symbol Acc 1305705
D11	UPFR1089489	ENSRNOT00000003077.5	Pdgfra	ENSRNOG0000002244	platelet derived growth factor receptor alpha Source RGD Symbol Acc 3284
D12	UPFR1048640	ENSRNOT00000041717.4	Prkaca	ENSRNOG0000005257	protein kinase cAMP-activated catalytic subunit alpha Source RGD Symbol Acc 3389
E01	UPFR1055817	ENSRNOT00000068739.1	Prkacb	ENSRNOG0000004978	protein kinase cAMP-activated catalytic subunit beta Source RGD Symbol Acc 1310574
E02	UPFR1054272	ENSRNOT00000086130.1	Ptch1	ENSRNOG0000019354	patched 1 Source RGD Symbol Acc 621425
E03	UPFR1033696	ENSRNOT00000036647.6	Disp3	ENSRNOG0000026447	dispatched RND transporter family member 3 Source RGD Symbol Acc 1305820
E04	UPFR1025473	ENSRNOT00000016933.4	Rab23	ENSRNOG0000012629	RAB23, member RAS oncogene family Source RGD Symbol Acc 1306867
E05	UPFR1025337	ENSRNOT00000018101.7	Rassf4	ENSRNOG0000013526	Ras association domain family member 4 Source RGD Symbol Acc 1307785
E06	UPFR1051266	ENSRNOT00000061014.4	Runx2	ENSRNOG0000020193	runt-related transcription factor 2 Source RGD Symbol Acc 2282
E07	UPFR1075309	ENSRNOT00000024128.6	Sfrp1	ENSRNOG0000017783	secreted frizzled-related protein 1 Source RGD Symbol Acc 621074
E08	UPFR1066763	ENSRNOT00000008497.2	Shh	ENSRNOG0000006120	sonic hedgehog signaling molecule Source RGD Symbol Acc 3673
E09	UPFR1086851	ENSRNOT00000016843.5	Shox2	ENSRNOG0000012478	short stature homeobox 2 Source RGD Symbol Acc 3674
E10	UPFR1032074	ENSRNOT00000080223.1	Smo	ENSRNOG0000008332	smoothened, frizzled class receptor Source RGD Symbol Acc 3726
E11	UPFR1067324	ENSRNOT00000065722.3	Stk3	ENSRNOG0000011278	serine/threonine kinase 3 Source RGD Symbol Acc 68412
E12	UPFR1102434	ENSRNOT00000026987.5	Sufu	ENSRNOG0000019807	SUFU negative regulator of hedgehog signaling Source RGD Symbol Acc 1559462
F01	UPFR1095007	ENSRNOT00000085115.1	Tp53	ENSRNOG0000010756	tumor protein p53 Source RGD Symbol Acc 3889
F02	UPFR1117908	ENSRNOT00000026559.5	Vegfa	ENSRNOG0000019598	vascular endothelial growth factor A Source RGD Symbol Acc 619991
F03	UPFR1017889	ENSRNOT00000006426.5	Wif1	ENSRNOG0000004476	Wnt inhibitory factor 1 Source RGD Symbol Acc 619774
F04	UPFR1120741	ENSRNOT00000090156.1	Wnt1	ENSRNOG0000061818	Wnt family member 1 Source RGD Symbol Acc 1597195
F05	UPFR1080362	ENSRNOT00000086375.1	Wnt10a	ENSRNOG0000052510	Wnt family member 10A Source RGD Symbol Acc 1307015
F06	UPFR1014479	ENSRNOT00000081468.1	Wnt10b	ENSRNOG0000061238	Wnt family member 10B Source RGD Symbol Acc 1304988
F07	UPFR1057474	ENSRNOT00000021674.5	Wnt11	ENSRNOG0000015982	Wnt family member 11 Source RGD Symbol Acc 621463
F08	UPFR1088266	ENSRNOT00000007822.4	Wnt16	ENSRNOG0000005781	Wnt family member 16 Source RGD Symbol Acc 1562253
F09	UPFR1075306	ENSRNOT00000083039.1	Wnt2	ENSRNOG0000051905	Wnt family member 2 Source RGD Symbol Acc 621346
F10	UPFR1054052	ENSRNOT00000019349.4	Wnt2b	ENSRNOG0000014385	Wnt family member 2B Source RGD Symbol Acc 69346

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1102007	ENSRNOT00000005176.5	Wnt3	ENSRNOG0000003845	Wnt family member 3 Source RGD Symbol Acc 3972
F12	UPFR1043063	ENSRNOT00000064505.3	Wnt3a	ENSRNOG0000003039	Wnt family member 3A Source RGD Symbol Acc 1308057
G01	UPFR1100692	ENSRNOT00000018064.5	Wnt4	ENSRNOG0000013166	Wnt family member 4 Source RGD Symbol Acc 621348
G02	UPFR1100946	ENSRNOT00000021164.3	Wnt5a	ENSRNOG0000015618	Wnt family member 5A Source RGD Symbol Acc 69250
G03	UPFR1070692	ENSRNOT00000011044.4	Wnt5b	ENSRNOG0000008168	Wnt family member 5B Source RGD Symbol Acc 628850
G04	UPFR1019852	ENSRNOT00000023439.6	Wnt6	ENSRNOG0000017409	Wnt family member 6 Source RGD Symbol Acc 1304559
G05	UPFR1121667	ENSRNOT00000070832.1	Wnt7a	ENSRNOG0000048782	Wnt family member 7A Source RGD Symbol Acc 69079
G06	UPFR1108584	ENSRNOT00000021196.7	Wnt7b	ENSRNOG0000015750	Wnt family member 7B Source RGD Symbol Acc 1311441
G07	UPFR1110650	ENSRNOT00000064574.1	Wnt8a	ENSRNOG0000020157	Wnt family member 8A Source RGD Symbol Acc 1306312
G08	UPFR1099233	ENSRNOT00000018815.6	Wnt8b	ENSRNOG0000013817	Wnt family member 8B Source RGD Symbol Acc 1307644
G09	UPFR1073122	ENSRNOT00000058327.3	Wnt9a	ENSRNOG0000003066	Wnt family member 9A Source RGD Symbol Acc 1305018
G10	UPFR1040062	ENSRNOT00000078561.1	Wnt9b	ENSRNOG0000003807	Wnt family member 9B Source RGD Symbol Acc 1309574
G11	UPFR1030194	ENSRNOT00000019860.5	Zic1	ENSRNOG0000014644	Zic family member 1 Source RGD Symbol Acc 620110
G12	UPFR1028940	ENSRNOT00000089455.1	Zic2	ENSRNOG0000054879	Zic family member 2 Source RGD Symbol Acc 1311174
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 μ l reactions: 20 μ l 8x gDNA Removal Mix, 10 μ l Reverse Transcription Enzyme, 40 μ l Reverse Transcription Mix (containing RT primers), 20 μ l Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova Probe RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 μ l QuantiNova Probe RT Mix, 20 μ l Internal Control RNA, 500 μ l Yellow Template Dilution Buffer, 250 μ l ROX Reference Dye, 1.9 μ l RNase-Free Water	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ 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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