

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

## Rat p53 Signaling Pathway

Cat. no. 249955 UPRN-027ZR

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](http://www.qiagen.com) for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	Apaf1	Apex1	Atm	Bag1	Bax	Bcl3	Bcl2	Bid	Birc5	Bnip3	Brcal	Brcal2
<b>B</b>	Btg2	Casp2	Casp9	Ccnb1	Ccne1	Ccng1	Ccnh	Cdc25a	Cdc25c	Cdk1	Cdk4	Cdkn1a
<b>C</b>	Cdkn2a	Stt3a	Chek2	Cul9	Dapk1	Dnmt1	E2f1	E2f3	Egfr	Egr1	AABR0705853 9.1	Ercc1
<b>D</b>	Esr1	Fadd	Fas	Faslg	Foxo3	Gadd45a	Hdac1	Hif1a	Igf1r	Il6	Jun	Kras
<b>E</b>	Lig4	Atr	Bok	Mdm2	Mdm4	Mlh1	Msh2	Myc	Myod1	Nf1	Nrkb1	Pcna
<b>F</b>	Pmaip1	Ppm1d	Prc1	Prkca	Plen	Ptfg1	Rb1	Rela	Sesn2	Rprm	Serpinc5	Sfn
<b>G</b>	AABR0704492 5.1	Stat1	LOC1036943 80	AABR0701832 3.1	Tp53	Tp53bp2	Tp63	Tp73	Wt1	Xrcc4	Xrcc5	Zmat3
<b>H</b>	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	UPFR1031240	ENSRNOT00000010869.6	Apaf1	ENSRNOG0000008022	apoptotic peptidase activating factor 1 Source RGD Symbol Acc 620575
A02	UPFR1104048	ENSRNOT000000087958.1	Apex1	ENSRNOG00000009663	apurinic/apyrimidinic endodeoxyribonuclease 1 Source RGD Symbol Acc 2126
A03	UPFR1064948	ENSRNOT000000086812.1	Atm	ENSRNOG0000029773	ATM serine/threonine kinase Source RGD Symbol Acc 1593265
A04	UPFR1065096	ENSRNOT000000011455.6	Bag1	ENSRNOG0000008277	Bcl2 associated athanogene 1 Source RGD Symbol Acc 1305203
A05	UPFR1074536	ENSRNOT000000028328.5	Bax	ENSRNOG0000020876	BCL2 associated X, apoptosis regulator Source RGD Symbol Acc 2192
A06	UPFR1035458	ENSRNOT000000025913.6	Bcl3	ENSRNOG0000043416	BCL3, transcription coactivator Source RGD Symbol Acc 1589465
A07	UPFR1082998	ENSRNOT000000003768.2	Bcl2	ENSRNOG0000002791	BCL2, apoptosis regulator Source RGD Symbol Acc 2199
A08	UPFR1018136	ENSRNOT000000016776.2	Bid	ENSRNOG0000012439	BH3 interacting domain death agonist Source RGD Symbol Acc 620160
A09	UPFR1053500	ENSRNOT000000072387.1	Birc5	ENSRNOG0000050819	baculoviral IAP repeat-containing 5 Source RGD Symbol Acc 70499
A10	UPFR1105806	ENSRNOT000000023477.6	Bnip3	ENSRNOG0000017243	BCL2 interacting protein 3 Source RGD Symbol Acc 620800
A11	UPFR1018614	ENSRNOT000000083111.1	Brca1	ENSRNOG0000020701	BRCA1, DNA repair associated Source RGD Symbol Acc 2218
A12	UPFR1085218	ENSRNOT000000001475.7	Brca2	ENSRNOG0000001111	BRCA2, DNA repair associated Source RGD Symbol Acc 2219
B01	UPFR1061715	ENSRNOT000000004408.3	Btg2	ENSRNOG0000003300	BTG anti-proliferation factor 2 Source RGD Symbol Acc 2225
B02	UPFR1065838	ENSRNOT000000022543.5	Casp2	ENSRNOG0000016707	caspase 2 Source RGD Symbol Acc 69274
B03	UPFR1054782	ENSRNOT000000085378.1	Casp9	ENSRNOG0000012944	caspase 9 Source RGD Symbol Acc 61867
B04	UPFR1042030	ENSRNOT000000082846.1	Ccnb1	ENSRNOG0000058539	cyclin B1 Source RGD Symbol Acc 2291
B05	UPFR1117418	ENSRNOT000000020014.4	Ccne1	ENSRNOG0000014786	cyclin E1 Source RGD Symbol Acc 2294
B06	UPFR1113303	ENSRNOT000000079646.1	Ccng1	ENSRNOG0000003256	cyclin G1 Source RGD Symbol Acc 2295
B07	UPFR1115974	ENSRNOT000000049423.1	Ccnh	ENSRNOG00000031656	cyclin H Source RGD Symbol Acc 69419
B08	UPFR1024541	ENSRNOT000000028141.7	Cdc25a	ENSRNOG0000020737	cell division cycle 25A Source RGD Symbol Acc 621498
B09	UPFR1053484	ENSRNOT000000037368.6	Cdc25c	ENSRNOG0000024008	cell division cycle 25C Source RGD Symbol Acc 1311875
B10	UPFR1047122	ENSRNOT000000081113.1	Cdk1	ENSRNOG0000000632	cyclin-dependent kinase 1 Source RGD Symbol Acc 2319
B11	UPFR1035170	ENSRNOT000000031796.4	Cdk4	ENSRNOG0000025602	cyclin-dependent kinase 4 Source RGD Symbol Acc 621120
B12	UPFR1028644	ENSRNOT000000091731.1	Cdkn1a	ENSRNOG0000000521	cyclin-dependent kinase inhibitor 1A Source RGD Symbol Acc 69328
C01	UPFR1104432	ENSRNOT000000079251.1	Cdkn2a	ENSRNOG0000059837	cyclin-dependent kinase inhibitor 2A Source RGD Symbol Acc 2323
C02	UPFR1067768	ENSRNOT000000082086.1	Stt3a	ENSRNOG00000031896	STT3A, catalytic subunit of the oligosaccharyltransferase complex Source RGD Symbol Acc 1565793
C03	UPFR1077555	ENSRNOT000000085591.1	Chek2	ENSRNOG00000037509	checkpoint kinase 2 Source RGD Symbol Acc 621543
C04	UPFR1049774	ENSRNOT000000080815.1	Cul9	ENSRNOG0000018372	cullin 9 Source RGD Symbol Acc 1562008
C05	UPFR1056311	ENSRNOT000000066950.2	Dapk1	ENSRNOG0000018198	death associated protein kinase 1 Source RGD Symbol Acc 1311629
C06	UPFR1014369	ENSRNOT000000064932.4	Dnmt1	ENSRNOG0000039859	DNA methyltransferase 1 Source RGD Symbol Acc 620979
C07	UPFR1077824	ENSRNOT000000022428.6	E2f1	ENSRNOG0000016708	N-terminal EF-hand calcium binding protein 3 Source RGD Symbol Acc 1310124
C08	UPFR1062133	ENSRNOT000000081368.1	E2f3	ENSRNOG0000029273	E2F transcription factor 3 Source RGD Symbol Acc 1561600
C09	UPFR1091984	ENSRNOT000000006087.2	Egfr	ENSRNOG0000004332	epidermal growth factor receptor Source RGD Symbol Acc 2543
C10	UPFR1034050	ENSRNOT000000026303.4	Egr1	ENSRNOG0000019422	early growth response 1 Source RGD Symbol Acc 2544
		ENSRNOT000000	AABR0705	ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1102114	000206.7	8539.1	000000190	
C12	UPFR1053097	ENSRNOT00000024113.5	Ercc1	ENSRNOG0000017839	ERCC excision repair 1, endonuclease non-catalytic subunit Source RGD Symbol Acc 1306992
D01	UPFR1099141	ENSRNOT00000026350.7	Esr1	ENSRNOG0000019358	estrogen receptor 1 Source RGD Symbol Acc 2581
D02	UPFR1101946	ENSRNOT00000075089.3	Fadd	ENSRNOG0000047035	Fas associated via death domain Source RGD Symbol Acc 628700
D03	UPFR1075141	ENSRNOT00000025928.5	Fas	ENSRNOG0000019142	Fas cell surface death receptor Source RGD Symbol Acc 619831
D04	UPFR1108356	ENSRNOT00000003998.2	Faslg	ENSRNOG0000002978	Fas ligand Source RGD Symbol Acc 3880
D05	UPFR1095067	ENSRNOT00000000327.5	Foxo3	ENSRNOG0000000299	forkhead box O3 Source RGD Symbol Acc 1309196
D06	UPFR1092990	ENSRNOT00000007698.6	Gadd45a	ENSRNOG0000005615	growth arrest and DNA-damage-inducible, alpha Source RGD Symbol Acc 2654
D07	UPFR1113247	ENSRNOT00000012854.6	Hdac1	ENSRNOG0000009568	histone deacetylase 1 Source RGD Symbol Acc 1309799
D08	UPFR1061095	ENSRNOT000000049725.3	Hif1a	ENSRNOG0000008292	hypoxia inducible factor 1 subunit alpha Source RGD Symbol Acc 61928
D09	UPFR1018620	ENSRNOT00000019267.6	Igf1r	ENSRNOG0000014187	insulin-like growth factor 1 receptor Source RGD Symbol Acc 2869
D10	UPFR1098910	ENSRNOT00000013732.6	Il6	ENSRNOG0000010278	interleukin 6 Source RGD Symbol Acc 2901
D11	UPFR1037970	ENSRNOT00000011731.3	Jun	ENSRNOG0000026293	Jun proto-oncogene, AP-1 transcription factor subunit Source RGD Symbol Acc 2943
D12	UPFR1088461	ENSRNOT00000012588.4	Kras	ENSRNOG0000009338	KRAS proto-oncogene, GTPase Source RGD Symbol Acc 2981
E01	UPFR1084917	ENSRNOT00000019615.5	Lig4	ENSRNOG0000014605	DNA ligase 4 Source RGD Symbol Acc 1304639
E02	UPFR1077171	ENSRNOT000000049967.5	Atr	ENSRNOG0000010027	ATR serine/threonine kinase Source RGD Symbol Acc 1305796
E03	UPFR1036930	ENSRNOT000000024695.6	Bok	ENSRNOG0000018214	BCL2 family apoptosis regulator BOK Source RGD Symbol Acc 70984
E04	UPFR1073822	ENSRNOT000000066767.2	Mdm2	ENSRNOG0000006304	MDM2 proto-oncogene Source RGD Symbol Acc 1305332
E05	UPFR1092345	ENSRNOT00000012984.5	Mdm4	ENSRNOG0000009696	MDM4, p53 regulator Source RGD Symbol Acc 1309306
E06	UPFR1102175	ENSRNOT000000064581.1	Mlh1	ENSRNOG0000003809	mutL homolog 1 Source RGD Symbol Acc 620937
E07	UPFR1084978	ENSRNOT000000021538.7	Msh2	ENSRNOG0000015796	mutS homolog 2 Source RGD Symbol Acc 620786
E08	UPFR1101439	ENSRNOT000000006188.5	Myc	ENSRNOG0000004500	MYC proto-oncogene, bHLH transcription factor Source RGD Symbol Acc 3130
E09	UPFR1080604	ENSRNOT00000015109.2	Myod1	ENSRNOG0000011306	myogenic differentiation 1 Source RGD Symbol Acc 631429
E10	UPFR1100816	ENSRNOT000000089538.1	Nf1	ENSRNOG0000013780	neurofibromin 1 Source RGD Symbol Acc 3168
E11	UPFR1116688	ENSRNOT000000036838.4	Nfkb1	ENSRNOG0000023258	nuclear factor kappa B subunit 1 Source RGD Symbol Acc 70498
E12	UPFR1093185	ENSRNOT000000028887.6	Pcna	ENSRNOG0000021264	proliferating cell nuclear antigen Source RGD Symbol Acc 3269
F01	UPFR1055085	ENSRNOT000000025362.3	Pmaip1	ENSRNOG0000018770	phorbol-12-myristate-13-acetate-induced protein 1 Source RGD Symbol Acc 1359266
F02	UPFR1052968	ENSRNOT000000004540.6	Ppm1d	ENSRNOG0000003329	protein phosphatase, Mg2+/Mn2+ dependent, 1D Source RGD Symbol Acc 1305460
F03	UPFR1069621	ENSRNOT00000017532.5	Prc1	ENSRNOG0000013057	protein regulator of cytokinesis 1 Source RGD Symbol Acc 1311754
F04	UPFR1034906	ENSRNOT000000004699.8	Prkca	ENSRNOG0000003491	protein kinase C, alpha Source RGD Symbol Acc 3395
F05	UPFR1043890	ENSRNOT000000028143.3	Pten	ENSRNOG0000020723	phosphatase and tensin homolog Source RGD Symbol Acc 61995
F06	UPFR1075984	ENSRNOT000000005070.5	Pttg1	ENSRNOG0000003802	pituitary tumor-transforming 1 Source RGD Symbol Acc 68359
F07	UPFR1039430	ENSRNOT000000021752.5	Rb1	ENSRNOG0000016029	RB transcriptional corepressor 1 Source RGD Symbol Acc 3540
F08	UPFR1070877	ENSRNOT000000045233.3	Rela	ENSRNOG0000030888	RELA proto-oncogene, NF-kB subunit Source RGD Symbol Acc 727889
F09	UPFR1060595	ENSRNOT000000067455.3	Sesn2	ENSRNOG0000042785	sestrin 2 Source RGD Symbol Acc 1566319
F10	UPFR1032277	ENSRNOT000000006784.3	Rprm	ENSRNOG0000005109	reprimo, TP53 dependent G2 arrest mediator homolog Source RGD Symbol Acc 1595512

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1103490	ENSRNOT00000003625.7	Serpib5	ENSRNOG0000002640	serpin family B member 5 Source RGD Symbol Acc 69342
F12	UPFR1042676	ENSRNOT00000043959.4	Sfn	ENSRNOG00000033153	stratifin Source RGD Symbol Acc 1304729
G01	UPFR1112360	ENSRNOT00000078739.1	AABR07044925.1	ENSRNOG00000051592	sirtuin 1 Source NCBI gene Acc 309757
G02	UPFR1068760	ENSRNOT00000083514.1	Stat1	ENSRNOG00000014079	signal transducer and activator of transcription 4 Source RGD Symbol Acc 1305747
G03	UPFR1098022	ENSRNOT00000079677.1	LOC103694380	ENSRNOG00000055156	tumor necrosis factor-like Source RGD Symbol Acc 9404643
G04	UPFR1016844	ENSRNOT00000066128.4	AABR07018323.1	ENSRNOG00000038483	
G05	UPFR1095007	ENSRNOT00000085115.1	Tp53	ENSRNOG00000010756	tumor protein p53 Source RGD Symbol Acc 3889
G06	UPFR1067479	ENSRNOT00000004330.7	Tp53bp2	ENSRNOG00000003237	tumor protein p53 binding protein, 2 Source RGD Symbol Acc 1305461
G07	UPFR1051192	ENSRNOT00000002636.7	Tp63	ENSRNOG00000001924	tumor protein p63 Source RGD Symbol Acc 620863
G08	UPFR1104356	ENSRNOT00000055398.2	Tp73	ENSRNOG00000024707	tumor protein p73 Source RGD Symbol Acc 1307083
G09	UPFR1027373	ENSRNOT00000067940.3	Wt1	ENSRNOG00000013074	Wilms tumor 1 Source RGD Symbol Acc 3974
G10	UPFR1037605	ENSRNOT00000045850.2	Xrcc4	ENSRNOG00000029966	X-ray repair cross complementing 4 Source RGD Symbol Acc 1359573
G11	UPFR1030423	ENSRNOT00000021656.4	Xrcc5	ENSRNOG00000016105	X-ray repair cross complementing 5 Source RGD Symbol Acc 3976
G12	UPFR1033228	ENSRNOT00000013858.7	Zmat3	ENSRNOG00000010119	zinc finger, matrin type 3 Source RGD Symbol Acc 620134
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 $\mu$ 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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