

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

Rat Drug Metabolism: Phase I Enzymes

Cat. no. 249955 UPRN-069ZA

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	A3galt2	A4galt	Aanat	Acs11	Acs13	Acs14	Acam3	Agxt	Alg5	As3mt	Asmt	Baat
B	Kyat1	Ces1d	Ces1a	LOC1003651 12	Ces5a	Chst7	Comt	Ddost	Eef1b2	Ephx1	Ephx2	Galnt1
C	Galnt3	Galnt2	Gamt	Gcnt1	Gcnt2	Glyat	Gnmt	Gsta1	Gsta4	Gstk1	Gstm1	Gstm2
D	Gstm3l	Gstm4	Gstm3	Gsto1	Gsto2	Gstp1	Gstt1	Gstt2	Hsa1	Hnmt	Inmt	Mgat1
E	Mgat2	Mgat1	Mgst2	Mgst3	Nat1	Nat2	Nnmt	Nqa1	Nqa2	Pomgnt1	Piges	Piges2
F	Sat1	Sult1a1	Sult1b1	LOC1009105 26	Sult1c3	Sult1e1	Sult2b1	Sult4a1	Sult5a1	Sult6b1	Tst	Ugcg
G	Gsta2	Aox1	Ugt1a3	Ugt2a3	Gsta3	Hsd17b3	Pon3	Ugt3a2	Ugt2b10	Ugt2b	Ugt8	Xdh
H	Acfb	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	UPFR1093103	ENSRNOT00000007851.5	A3galt2	ENSRNOG0000005935	alpha 1,3-galactosyltransferase 2 Source RGD Symbol Acc 727913
A02	UPFR1055348	ENSRNOT00000012914.5	A4galt	ENSRNOG0000009736	alpha 1,4-galactosyltransferase Source RGD Symbol Acc 621583
A03	UPFR1054707	ENSRNOT00000015221.4	Aanat	ENSRNOG0000011182	aralkylamine N-acetyltransferase Source RGD Symbol Acc 2006
A04	UPFR1104275	ENSRNOT00000089501.1	Acs1	ENSRNOG0000010633	acyl-CoA synthetase long-chain family member 1 Source RGD Symbol Acc 2015
A05	UPFR1023034	ENSRNOT00000020161.2	Acs13	ENSRNOG0000014718	acyl-CoA synthetase long-chain family member 3 Source RGD Symbol Acc 70552
A06	UPFR1082627	ENSRNOT00000026057.6	Acs14	ENSRNOG0000019180	acyl-CoA synthetase long-chain family member 4 Source RGD Symbol Acc 69401
A07	UPFR1076274	ENSRNOT00000020039.6	Acsm3	ENSRNOG0000032246	acyl-CoA synthetase medium-chain family member 3 Source RGD Symbol Acc 62086
A08	UPFR1021740	ENSRNOT00000029127.3	Agxt	ENSRNOG0000023856	alanine--glyoxylate and serine--pyruvate aminotransferase Source RGD Symbol Acc 2073
A09	UPFR1114612	ENSRNOT00000088575.1	Alg5	ENSRNOG0000058694	ALG5, dolichyl-phosphate beta-glucosyltransferase Source RGD Symbol Acc 1308900
A10	UPFR1049193	ENSRNOT00000027223.6	As3mt	ENSRNOG0000020081	arsenite methyltransferase Source RGD Symbol Acc 621325
A11	UPFR1065337	ENSRNOT00000001791.6	Asmt	ENSRNOG000001324	acetylserotonin O-methyltransferase Source RGD Symbol Acc 708472
A12	UPFR1044920	ENSRNOT00000009777.5	Baat	ENSRNOG0000007395	bile acid CoA amino acid N-acyltransferase Source RGD Symbol Acc 2190
B01	UPFR1037115	ENSRNOT00000021865.6	Kyat1	ENSRNOG0000016097	kynurenine aminotransferase 1 Source RGD Symbol Acc 1306912
B02	UPFR1017286	ENSRNOT00000021812.6	Ces1d	ENSRNOG0000015519	carboxylesterase 1D Source RGD Symbol Acc 70896
B03	UPFR1088352	ENSRNOT00000060929.2	Ces1a	ENSRNOG0000039725	carboxylesterase 1A Source RGD Symbol Acc 1583671
B04	UPFR1091614	ENSRNOT00000080995.1	LOC100365112	ENSRNOG0000036571	carboxylesterase-like Source RGD Symbol Acc 2319661
B05	UPFR1043791	ENSRNOT00000049452.4	Ces5a	ENSRNOG0000025710	carboxylesterase 5A Source RGD Symbol Acc 1549717
B06	UPFR1020559	ENSRNOT00000005630.5	Chst7	ENSRNOG0000004258	carbohydrate sulfotransferase 7 Source RGD Symbol Acc 1303028
B07	UPFR1106463	ENSRNOT00000050269.5	Comt	ENSRNOG0000001889	catechol-O-methyltransferase Source RGD Symbol Acc 2379
B08	UPFR1016539	ENSRNOT00000067228.3	Ddost	ENSRNOG0000015079	dolichyl-diphosphooligosaccharide--protein glycosyltransferase non-catalytic subunit Source RGD Symbol Acc 1308970
B09	UPFR1119404	ENSRNOT00000034740.4	Eef1b2	ENSRNOG0000024186	eukaryotic translation elongation factor 1 beta 2 Source RGD Symbol Acc 1311415
B10	UPFR1054888	ENSRNOT00000085279.1	Ephx1	ENSRNOG0000003515	epoxide hydrolase 1 Source RGD Symbol Acc 2557
B11	UPFR1054800	ENSRNOT00000023385.7	Ephx2	ENSRNOG0000017286	epoxide hydrolase 2 Source RGD Symbol Acc 620732
B12	UPFR1100466	ENSRNOT00000022117.4	Galnt1	ENSRNOG0000016207	polypeptide N-acetylgalactosaminyltransferase 1 Source RGD Symbol Acc 620358
C01	UPFR1039678	ENSRNOT00000007615.6	Galnt3	ENSRNOG0000005727	polypeptide N-acetylgalactosaminyltransferase 3 Source RGD Symbol Acc 1306443
C02	UPFR1022623	ENSRNOT00000065431.1	Galnt2	ENSRNOG0000019143	polypeptide N-acetylgalactosaminyltransferase 2 Source RGD Symbol Acc 1310692
C03	UPFR1038035	ENSRNOT00000028969.4	Gamt	ENSRNOG0000024577	guanidinoacetate N-methyltransferase Source RGD Symbol Acc 2659
C04	UPFR1035126	ENSRNOT00000074939.2	Gcnt1	ENSRNOG0000050534	glucosaminyl (N-acetyl) transferase 1 Source RGD Symbol Acc 621370
C05	UPFR1052858	ENSRNOT00000035448.4	Gcnt2	ENSRNOG0000023778	glucosaminyl (N-acetyl) transferase 2 Source RGD Symbol Acc 1303198
C06	UPFR1079898	ENSRNOT00000087526.1	Glyat	ENSRNOG0000012142	glycine-N-acyltransferase Source RGD Symbol Acc 1307163
C07	UPFR1014779	ENSRNOT00000022307.4	Gnmt	ENSRNOG0000016349	glycine N-methyltransferase Source RGD Symbol Acc 2719
C08	UPFR1111390	ENSRNOT00000085195.1	Gsta1	ENSRNOG0000013484	glutathione S-transferase alpha 1 Source RGD Symbol Acc 2753
C09	UPFR1117992	ENSRNOT00000012348.6	Gsta4	ENSRNOG0000030449	glutathione S-transferase alpha 4 Source RGD Symbol Acc 1309970
C10	UPFR1022537	ENSRNOT00000022275.4	Gstk1	ENSRNOG0000016484	glutathione S-transferase kappa 1 Source RGD Symbol Acc 735188
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFR1118427	047139.3	Gstm1	000029726	glutathione S-transferase mu 1 Source RGD Symbol Acc 2755
C12	UPFR1083092	ENSRNOT00000025689.4	Gstm2	ENSRNOG0000018937	glutathione S-transferase mu 2 Source RGD Symbol Acc 2756
D01	UPFR1121340	ENSRNOT00000025800.2	Gstm3l	ENSRNOG0000019058	glutathione S-transferase mu 3-like Source RGD Symbol Acc 620381
D02	UPFR1086046	ENSRNOT00000025994.6	Gstm4	ENSRNOG0000019221	glutathione S-transferase mu 4 Source RGD Symbol Acc 1565825
D03	UPFR1066051	ENSRNOT00000072342.2	Gstm3	ENSRNOG0000049743	glutathione S-transferase mu 3 Source RGD Symbol Acc 11402080
D04	UPFR1078773	ENSRNOT00000076367.2	Gsto1	ENSRNOG0000028746	glutathione S-transferase omega 1 Source RGD Symbol Acc 70952
D05	UPFR1090448	ENSRNOT00000017186.6	Gsto2	ENSRNOG0000012801	glutathione S-transferase omega-2 Source RGD Symbol Acc 9449876
D06	UPFR1075260	ENSRNOT00000024601.4	Gstp1	ENSRNOG0000018237	glutathione S-transferase pi 1 Source RGD Symbol Acc 2758
D07	UPFR1063663	ENSRNOT00000001669.4	Gsth1	ENSRNOG0000049771	glutathione S-transferase theta 1 Source RGD Symbol Acc 2765
D08	UPFR1046576	ENSRNOT00000081140.1	Gsth2	ENSRNOG0000052415	glutathione S-transferase, theta 2 Source RGD Symbol Acc 69362
D09	UPFR1087597	ENSRNOT00000014824.4	Has1	ENSRNOG0000010994	hyaluronan synthase 1 Source RGD Symbol Acc 708528
D10	UPFR1020871	ENSRNOT00000007471.6	Hnmt	ENSRNOG0000005223	histamine N-methyltransferase Source RGD Symbol Acc 71049
D11	UPFR1014959	ENSRNOT00000015316.6	Inmt	ENSRNOG0000011250	indolethylamine N-methyltransferase Source RGD Symbol Acc 1597087
D12	UPFR1080727	ENSRNOT00000085832.1	Mgat1	ENSRNOG0000031208	mannosyl (alpha-1,3-)-glycoprotein beta-1,2-N-acetylglucosaminyltransferase Source RGD Symbol Acc 620097
E01	UPFR1021807	ENSRNOT00000005608.5	Mgat2	ENSRNOG0000004234	mannosyl (alpha-1,6-)-glycoprotein beta-1,2-N-acetylglucosaminyltransferase Source RGD Symbol Acc 620098
E02	UPFR1019671	ENSRNOT00000010579.7	Mgst1	ENSRNOG0000007743	microsomal glutathione S-transferase 1 Source RGD Symbol Acc 70927
E03	UPFR1064939	ENSRNOT00000088846.1	Mgst2	ENSRNOG0000061857	microsomal glutathione S-transferase 2 Source RGD Symbol Acc 1311218
E04	UPFR1065910	ENSRNOT00000005719.7	Mgst3	ENSRNOG0000004245	microsomal glutathione S-transferase 3 Source RGD Symbol Acc 1306373
E05	UPFR1076734	ENSRNOT00000018854.6	Nat1	ENSRNOG0000014055	N-acetyltransferase 1 Source RGD Symbol Acc 70490
E06	UPFR1061487	ENSRNOT00000044198.1	Nat2	ENSRNOG0000049498	N-acetyltransferase 2 Source RGD Symbol Acc 70492
E07	UPFR1044124	ENSRNOT00000007789.5	Nnmt	ENSRNOG0000005930	nicotinamide N-methyltransferase Source RGD Symbol Acc 1309606
E08	UPFR1111217	ENSRNOT00000017174.5	Nqo1	ENSRNOG0000012772	NAD(P)H quinone dehydrogenase 1 Source RGD Symbol Acc 2503
E09	UPFR1092427	ENSRNOT00000024141.5	Nqo2	ENSRNOG0000017820	N-ribosyldihydronicotinamide quinone reductase 2 Source RGD Symbol Acc 1303320
E10	UPFR1086950	ENSRNOT00000035312.5	Pomgnt1	ENSRNOG0000023455	protein O-linked mannose N-acetylglucosaminyltransferase 1 (beta 1,2-) Source RGD Symbol Acc 1359396
E11	UPFR1080395	ENSRNOT00000045993.2	Ptges	ENSRNOG0000006320	prostaglandin E synthase Source RGD Symbol Acc 62076
E12	UPFR1071457	ENSRNOT00000019184.6	Ptges2	ENSRNOG0000014050	prostaglandin E synthase 2 Source RGD Symbol Acc 1310836
F01	UPFR1043646	ENSRNOT00000068078.2	Sat1	ENSRNOG0000003809	spermidine/spermine N1-acetyl transferase 1 Source RGD Symbol Acc 1586174
F02	UPFR1013561	ENSRNOT00000026186.4	Sult1a1	ENSRNOG0000019342	sulfotransferase family 1A member 1 Source RGD Symbol Acc 3767
F03	UPFR1029252	ENSRNOT00000002699.5	Sult1b1	ENSRNOG0000001967	sulfotransferase family 1B member 1 Source RGD Symbol Acc 708534
F04	UPFR1102140	ENSRNOT00000081413.1	LOC100910526	ENSRNOG0000040215	sulfotransferase 1C2-like Source RGD Symbol Acc 6497849
F05	UPFR1110305	ENSRNOT00000082530.1	Sult1c3	ENSRNOG0000011269	sulfotransferase family 1C member 3 Source RGD Symbol Acc 3768
F06	UPFR1016117	ENSRNOT00000002680.5	Sult1e1	ENSRNOG0000001957	sulfotransferase family 1E member 1 Source RGD Symbol Acc 3776
F07	UPFR1027379	ENSRNOT00000028570.7	Sult2b1	ENSRNOG0000021046	sulfotransferase family 2B member 1 Source RGD Symbol Acc 1308882
F08	UPFR1121053	ENSRNOT00000075099.2	Sult4a1	ENSRNOG0000046975	sulfotransferase family 4A, member 1 Source RGD Symbol Acc 69292
F09	UPFR1112774	ENSRNOT00000051452.5	Sult5a1	ENSRNOG0000015695	sulfotransferase family 5A, member 1 Source RGD Symbol Acc 1310002
F10	UPFR1068099	ENSRNOT00000075000.1	Sult6b1	ENSRNOG0000049335	sulfotransferase family 6B member 1 Source RGD Symbol Acc 1598187

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFR1073620	ENSRNOT00000050511.5	Tst	ENSRNOG0000000186	thiosulfate sulfurtransferase Source RGD Symbol Acc 3913
F12	UPFR1107107	ENSRNOT00000021110.4	Ugcg	ENSRNOG0000015644	UDP-glucose ceramide glucosyltransferase Source RGD Symbol Acc 621870
G01	UPFR1026291	ENSRNOT00000032185.5	Gsta2	ENSRNOG0000029861	glutathione S-transferase alpha 2 Source RGD Symbol Acc 2754
G02	UPFR1050426	ENSRNOT00000068633.4	Aox1	ENSRNOG0000015354	aldehyde oxidase 1 Source RGD Symbol Acc 620528
G03	UPFR1060830	ENSRNOT00000025652.8	Ugt1a3	ENSRNOG0000018740	UDP glycosyltransferase 1 family, polypeptide A3 Source RGD Symbol Acc 1549728
G04	UPFR1019122	ENSRNOT00000002705.6	Ugt2a3	ENSRNOG0000001973	UDP glucuronosyltransferase family 2 member A3 Source RGD Symbol Acc 1308444
G05	UPFR1058307	ENSRNOT00000077372.1	Gsta3	ENSRNOG0000056847	glutathione S-transferase alpha 3 Source RGD Symbol Acc 1591980
G06	UPFR1035807	ENSRNOT00000025850.3	Hsd17b3	ENSRNOG0000019096	hydroxysteroid (17-beta) dehydrogenase 3 Source RGD Symbol Acc 621805
G07	UPFR1062090	ENSRNOT00000012050.4	Pon3	ENSRNOG0000009096	paraoxonase 3 Source RGD Symbol Acc 1302965
G08	UPFR1086979	ENSRNOT00000081192.1	Ugt3a2	ENSRNOG0000059568	UDP glycosyltransferase 3 family, polypeptide A2 Source RGD Symbol Acc 1564365
G09	UPFR1119125	ENSRNOT00000002724.3	Ugt2b10	ENSRNOG0000001990	UDP glucuronosyltransferase 2 family, polypeptide B10 Source RGD Symbol Acc 1309989
G10	UPFR1118266	ENSRNOT00000063915.3	Ugt2b	ENSRNOG0000046540	UDP glucuronosyltransferase family 2 member B15 Source RGD Symbol Acc 628623
G11	UPFR1121913	ENSRNOT00000012676.4	Ugt8	ENSRNOG0000009345	UDP glycosyltransferase 8 Source RGD Symbol Acc 3938
G12	UPFR1070658	ENSRNOT00000009634.6	Xdh	ENSRNOG0000007081	xanthine dehydrogenase Source RGD Symbol Acc 62043
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 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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