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

Human Fatty Acid Metabolism

Cat. no. 249950 SBHS-007ZR

For study focus gene expression analysis

Shipping and storage

QuantiNova LNA PCR Focus Panels are shipped at ambient temperature. Immediately upon receipt, they should be stored 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 PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova SYBR® Green PCR Kit (Mastermix) for PCR.

Panel layout (Rotor-Gene): QuantiNova LNA 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 PCR System Handbook at **www.qiagen.com** for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	ACAA1	ACAA2	ACAD10	ACAD11	ACAD9	ACADL	ACADM	ACADS	ACADSB	ACADVL	ACAT1	ACAT2
B	ACOT1	ACOT12	ACOT6	ACOT7	ACOT8	ACOT9	ACOX1	ACOX2	ACOX3	ACSBG1	ACSBG2	ACSL1
C	ACSL3	ACSL4	ACSL5	ACSL6	ACSM3	ACSM4	ACSM5	ALDH2	BDH1	BDH2	CPT1A	CPT1B
D	CPT1C	CPT2	CRAT	CROT	DECR1	DECR2	ECHS1	ECI2	EHHADH	FABP1	FABP2	FABP3
E	FABP4	FABP5	FABP6	FABP7	FASN	GCDH	GK	GK2	GPD1	GPD2	HADHA	HMGCL
F	HMGCS1	HMGCS2	LIPE	LPL	MCEE	MMUT	OXCT2	PECR	PPA1	PRKAA1	PRKAA2	PRKAB1
G	PRKAB2	PRKACA	PRKACB	PRKAG1	PRKAG2	PRKAG3	SLC27A1	SLC27A2	SLC27A3	SLC27A4	SLC27A5	SLC27A6
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBH0669228	ENST00000450296.5	ACAA1	ENSG00000060971	acetyl-CoA acyltransferase 1 Source HGNC Symbol Acc HGNC 82
A02	SBH0372581	ENST00000285093.15	ACAA2	ENSG00000167315	acetyl-CoA acyltransferase 2 Source HGNC Symbol Acc HGNC 83
A03	SBH0135030	ENST00000413681.7	ACAD10	ENSG00000111271	acyl-CoA dehydrogenase family member 10 Source HGNC Symbol Acc HGNC 21597
A04	SBH0214978	ENST00000485198.5	ACAD11	ENSG00000240303	acyl-CoA dehydrogenase family member 11 Source HGNC Symbol Acc HGNC 30211
A05	SBH0301802	ENST00000514336.1	ACAD9	ENSG00000177646	acyl-CoA dehydrogenase family member 9 Source HGNC Symbol Acc HGNC 21497
A06	SBH0609590	ENST00000482502.1	ACADL	ENSG00000115361	acyl-CoA dehydrogenase long chain Source HGNC Symbol Acc HGNC 88
A07	SBH0112462	ENST00000370841.8	ACADM	ENSG00000117054	acyl-CoA dehydrogenase medium chain Source HGNC Symbol Acc HGNC 89
A08	SBH0481999	ENST00000242592.9	ACADS	ENSG00000122971	acyl-CoA dehydrogenase short chain Source HGNC Symbol Acc HGNC 90
A09	SBH0233602	ENST00000358776.6	ACADSB	ENSG00000196177	acyl-CoA dehydrogenase short/branched chain Source HGNC Symbol Acc HGNC 91
A10	SBH0640641	ENST00000579425.5	ACADVL	ENSG00000072778	acyl-CoA dehydrogenase very long chain Source HGNC Symbol Acc HGNC 92
A11	SBH0589422	ENST00000527942.5	ACAT1	ENSG00000075239	acetyl-CoA acetyltransferase 1 Source HGNC Symbol Acc HGNC 93
A12	SBH0122152	ENST00000467951.1	ACAT2	ENSG00000120437	acetyl-CoA acetyltransferase 2 Source HGNC Symbol Acc HGNC 94
B01	SBH0469099	ENST00000557556.1	ACOT1	ENSG00000184227	acyl-CoA thioesterase 1 Source HGNC Symbol Acc HGNC 33128
B02	SBH0493957	ENST00000307624.8	ACOT12	ENSG00000172497	acyl-CoA thioesterase 12 Source HGNC Symbol Acc HGNC 24436
B03	SBH0096678	ENST00000554229.1	ACOT6	ENSG00000205669	acyl-CoA thioesterase 6 Source HGNC Symbol Acc HGNC 33159
B04	SBH0241114	ENST00000377855.6	ACOT7	ENSG00000097021	acyl-CoA thioesterase 7 Source HGNC Symbol Acc HGNC 24157
B05	SBH0167358	ENST00000652771.1	ACOT8	ENSG00000101473	acyl-CoA thioesterase 8 Source HGNC Symbol Acc HGNC 15919
B06	SBH0572828	ENST00000379303.10	ACOT9	ENSG00000123130	acyl-CoA thioesterase 9 Source HGNC Symbol Acc HGNC 17152
B07	SBH0169326	ENST00000293217.10	ACOX1	ENSG00000161533	acyl-CoA oxidase 1 Source HGNC Symbol Acc HGNC 119
B08	SBH0405699	ENST00000459701.6	ACOX2	ENSG00000168306	acyl-CoA oxidase 2 Source HGNC Symbol Acc HGNC 120
B09	SBH0102149	ENST00000356406.10	ACOX3	ENSG00000087008	acyl-CoA oxidase 3, pristanoyl Source HGNC Symbol Acc HGNC 121
B10	SBH0099966	ENST00000559707.5	ACSBG1	ENSG00000103740	acyl-CoA synthetase bubblegum family member 1 Source HGNC Symbol Acc HGNC 29567
B11	SBH0544145	ENST00000588304.5	ACSBG2	ENSG00000130377	acyl-CoA synthetase bubblegum family member 2 Source HGNC Symbol Acc HGNC 24174
B12	SBH0588811	ENST00000505492.1	ACSL1	ENSG00000151726	acyl-CoA synthetase long chain family member 1 Source HGNC Symbol Acc HGNC 3569
C01	SBH1219721	ENST00000413316.1	ACSL3	ENSG00000123983	acyl-CoA synthetase long chain family member 3 Source HGNC Symbol Acc HGNC 3570
C02	SBH0030689	ENST00000348502.10	ACSL4	ENSG00000068366	acyl-CoA synthetase long chain family member 4 Source HGNC Symbol Acc HGNC 3571
C03	SBH0217698	ENST00000356116.5	ACSL5	ENSG00000197142	acyl-CoA synthetase long chain family member 5 Source HGNC Symbol Acc HGNC 16526
C04	SBH0311062	ENST00000651127.1	ACSL6	ENSG00000164398	acyl-CoA synthetase long chain family member 6 Source HGNC Symbol Acc HGNC 16496
C05	SBH0585903	ENST00000567387.5	ACSM3	ENSG00000005187	acyl-CoA synthetase medium chain family member 3 Source HGNC Symbol Acc HGNC 10522
C06	SBH0337968	ENST00000399422.4	ACSM4	ENSG00000215009	acyl-CoA synthetase medium chain family member 4 Source HGNC Symbol Acc HGNC 32016
C07	SBH0187716	ENST00000331849.8	ACSM5	ENSG00000183549	acyl-CoA synthetase medium chain family member 5 Source HGNC Symbol Acc HGNC 26060
C08	SBH0048037	ENST00000549106.1	ALDH2	ENSG00000111275	aldehyde dehydrogenase 2 family member Source HGNC Symbol Acc HGNC 404
C09	SBH0064118	ENST00000392379.6	BDH1	ENSG00000161267	3-hydroxybutyrate dehydrogenase 1 Source HGNC Symbol Acc HGNC 1027
C10	SBH0280596	ENST00000506521.5	BDH2	ENSG00000164039	3-hydroxybutyrate dehydrogenase 2 Source HGNC Symbol Acc HGNC 32389
		ENST00000539		ENSG00000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0531896	743.5	CPT1A	110090	carnitine palmitoyltransferase 1A Source HGNC Symbol Acc HGNC 2328
C12	SBH0574504	ENST00000312108.11	CPT1B	ENSG00000205560	carnitine palmitoyltransferase 1B Source HGNC Symbol Acc HGNC 2329
D01	SBH0670923	ENST00000598396.5	CPT1C	ENSG00000169169	carnitine palmitoyltransferase 1C Source HGNC Symbol Acc HGNC 18540
D02	SBH1219910	ENST00000636891.1	CPT2	ENSG00000157184	carnitine palmitoyltransferase 2 Source HGNC Symbol Acc HGNC 2330
D03	SBH0083140	ENST00000318080.7	CRAT	ENSG00000095321	carnitine O-acetyltransferase Source HGNC Symbol Acc HGNC 2342
D04	SBH0208275	ENST00000419147.6	CROT	ENSG00000005469	carnitine O-octanoyltransferase Source HGNC Symbol Acc HGNC 2366
D05	SBH0042189	ENST00000519328.5	DECR1	ENSG00000104325	2,4-dienoyl-CoA reductase 1 Source HGNC Symbol Acc HGNC 2753
D06	SBH0200871	ENST00000437024.5	DECR2	ENSG00000242612	2,4-dienoyl-CoA reductase 2 Source HGNC Symbol Acc HGNC 2754
D07	SBH0093368	ENST00000368547.4	ECHS1	ENSG00000127884	enoyl-CoA hydratase, short chain 1 Source HGNC Symbol Acc HGNC 3151
D08	SBH0282967	ENST00000496241.6	ECI2	ENSG00000198721	enoyl-CoA delta isomerase 2 Source HGNC Symbol Acc HGNC 14601
D09	SBH0116631	ENST00000456310.5	EHHADH	ENSG00000113790	enoyl-CoA hydratase and 3-hydroxyacyl CoA dehydrogenase Source HGNC Symbol Acc HGNC 3247
D10	SBH1219991	ENST00000393750.3	FABP1	ENSG00000163586	fatty acid binding protein 1 Source HGNC Symbol Acc HGNC 3555
D11	SBH0295583	ENST00000274024.3	FABP2	ENSG00000145384	fatty acid binding protein 2 Source HGNC Symbol Acc HGNC 3556
D12	SBH0060313	ENST00000373713.6	FABP3	ENSG00000121769	fatty acid binding protein 3 Source HGNC Symbol Acc HGNC 3557
E01	SBH0327090	ENST00000521734.1	FABP4	ENSG00000170323	fatty acid binding protein 4 Source HGNC Symbol Acc HGNC 3559
E02	SBH0233621	ENST00000396359.1	FABP5	ENSG00000164687	fatty acid binding protein 5 Source HGNC Symbol Acc HGNC 3560
E03	SBH0386907	ENST00000393980.8	FABP6	ENSG00000170231	fatty acid binding protein 6 Source HGNC Symbol Acc HGNC 3561
E04	SBH0346793	ENST00000368444.8	FABP7	ENSG00000164434	fatty acid binding protein 7 Source HGNC Symbol Acc HGNC 3562
E05	SBH0282662	ENST00000635197.1	FASN	ENSG00000169710	fatty acid synthase Source HGNC Symbol Acc HGNC 3594
E06	SBH0139602	ENST00000222214.10	GCDH	ENSG00000105607	glutaryl-CoA dehydrogenase Source HGNC Symbol Acc HGNC 4189
E07	SBH0594548	ENST00000378946.7	GK	ENSG00000198814	glycerol kinase Source HGNC Symbol Acc HGNC 4289
E08	SBH0394695	ENST00000358842.4	GK2	ENSG00000196475	glycerol kinase 2 Source HGNC Symbol Acc HGNC 4291
E09	SBH0000085	ENST00000548152.1	GPD1	ENSG00000167588	glycerol-3-phosphate dehydrogenase 1 Source HGNC Symbol Acc HGNC 4455
E10	SBH1220030	ENST00000409674.5	GPD2	ENSG00000115159	glycerol-3-phosphate dehydrogenase 2 Source HGNC Symbol Acc HGNC 4456
E11	SBH0246718	ENST00000644428.1	HADHA	ENSG00000084754	hydroxyacyl-CoA dehydrogenase trifunctional multienzyme complex subunit alpha Source HGNC Symbol Acc HGNC 4801
E12	SBH0475182	ENST00000235958.4	HMGCL	ENSG00000117305	3-hydroxy-3-methylglutaryl-CoA lyase Source HGNC Symbol Acc HGNC 5005
F01	SBH0203453	ENST00000514610.1	HMGCS1	ENSG00000112972	3-hydroxy-3-methylglutaryl-CoA synthase 1 Source HGNC Symbol Acc HGNC 5007
F02	SBH0048516	ENST00000544913.2	HMGCS2	ENSG00000134240	3-hydroxy-3-methylglutaryl-CoA synthase 2 Source HGNC Symbol Acc HGNC 5008
F03	SBH0638061	ENST00000601189.1	LIPE	ENSG00000079435	lipase E, hormone sensitive type Source HGNC Symbol Acc HGNC 6621
F04	SBH1220175	ENST00000311322.10	LPL	ENSG00000175445	lipoprotein lipase Source HGNC Symbol Acc HGNC 6677
F05	SBH0147354	ENST00000244217.6	MCEE	ENSG00000124370	methylmalonyl-CoA epimerase Source HGNC Symbol Acc HGNC 16732
F06	SBH0404755	ENST00000274813.4	MMUT	ENSG00000146085	methylmalonyl-CoA mutase Source HGNC Symbol Acc HGNC 7526
F07	SBH0305524	ENST00000327582.5	OXCT2	ENSG00000198754	3-oxoacid CoA-transferase 2 Source HGNC Symbol Acc HGNC 18606
F08	SBH0134997	ENST00000497889.5	PECR	ENSG00000115425	peroxisomal trans-2-enoyl-CoA reductase Source HGNC Symbol Acc HGNC 18281
F09	SBH1220320	ENST00000373232.8	PPA1	ENSG00000180817	pyrophosphatase (inorganic) 1 Source HGNC Symbol Acc HGNC 9226
F10	SBH1220332	ENST00000397128.6	PRKAA1	ENSG00000132356	protein kinase AMP-activated catalytic subunit alpha 1 Source HGNC Symbol Acc HGNC 9376

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0060864	ENST00000371244.9	PRKAA2	ENSG00000162409	protein kinase AMP-activated catalytic subunit alpha 2 Source HGNC Symbol Acc HGNC 9377
F12	SBH0514318	ENST00000545223.1	PRKAB1	ENSG00000111725	protein kinase AMP-activated non-catalytic subunit beta 1 Source HGNC Symbol Acc HGNC 9378
G01	SBH0146629	ENST00000254101.4	PRKAB2	ENSG00000131791	protein kinase AMP-activated non-catalytic subunit beta 2 Source HGNC Symbol Acc HGNC 9379
G02	SBH0440536	ENST00000308677.8	PRKACA	ENSG00000072062	protein kinase cAMP-activated catalytic subunit alpha Source HGNC Symbol Acc HGNC 9380
G03	SBH0491110	ENST00000432111.5	PRKACB	ENSG00000142875	protein kinase cAMP-activated catalytic subunit beta Source HGNC Symbol Acc HGNC 9381
G04	SBH0638541	ENST00000550125.5	PRKAG1	ENSG00000181929	protein kinase AMP-activated non-catalytic subunit gamma 1 Source HGNC Symbol Acc HGNC 9385
G05	SBH0170149	ENST00000652136.1	PRKAG2	ENSG00000106617	protein kinase AMP-activated non-catalytic subunit gamma 2 Source HGNC Symbol Acc HGNC 9386
G06	SBH0373404	ENST00000430489.1	PRKAG3	ENSG00000115592	protein kinase AMP-activated non-catalytic subunit gamma 3 Source HGNC Symbol Acc HGNC 9387
G07	SBH0159749	ENST00000593701.5	SLC27A1	ENSG00000130304	solute carrier family 27 member 1 Source HGNC Symbol Acc HGNC 10995
G08	SBH0259960	ENST00000267842.10	SLC27A2	ENSG00000140284	solute carrier family 27 member 2 Source HGNC Symbol Acc HGNC 10996
G09	SBH0481249	ENST00000484014.5	SLC27A3	ENSG00000143554	solute carrier family 27 member 3 Source HGNC Symbol Acc HGNC 10997
G10	SBH1220402	ENST00000300456.5	SLC27A4	ENSG00000167114	solute carrier family 27 member 4 Source HGNC Symbol Acc HGNC 10998
G11	SBH0355039	ENST00000263093.7	SLC27A5	ENSG00000083807	solute carrier family 27 member 5 Source HGNC Symbol Acc HGNC 10999
G12	SBH0235601	ENST00000395266.5	SLC27A6	ENSG00000113396	solute carrier family 27 member 6 Source HGNC Symbol Acc HGNC 11000
H01	SBH1220543	ENST00000646664.1	ACTB	ENSG00000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	SBH1220550	ENST00000558401.6	B2M	ENSG00000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	SBH1220545	ENST00000396861.5	GAPDH	ENSG00000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	SBH1220546	ENST00000298556.8	HPRT1	ENSG00000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	SBH1220553	ENST00000546989.5	RPLP0	ENSG00000089157	ribosomal protein lateral stalk subunit P0 Source HGNC Symbol Acc HGNC 10371
H06	SBH1218553	Sybr_HGDC	HGDC	Sybr_HGDC	Human Genomic DNA Contamination
H07	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H08	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H09	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H10	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H11	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H12	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control

Related products

Product	Contents	Cat. no.
QuantiNova LNA PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249940
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 SYBR Green RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 µl QuantiNova SYBR Green RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl QN ROX Reference Dye, 1.9 ml Water	208052

*Larger kit sizes available.

The QuantiNova LNA 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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