

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

Human Amino Acid Metabolism II

Cat. no. 249950 SBHS-130ZA

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 (96-well): QuantiNova LNA PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. 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	AADAT	AASDHPPT	AASS	ABAT	AOC1	ACADM	ACADS	ACADSB	ACAT2	ADH5	ADSL	ADSS
B	AGXT	ALAS1	ALDH2	ALDH3B1	ALDH5A1	ALDH6A1	AMDHD1	AMT	AOC3	ASH1L	ASNS	ASPA
C	BBOX1	BCAT1	BCKDHB	BHMT	CHDH	CNDP1	COMT	DAO	DBH	DBT	DDC	DLD
D	DLST	DMGDH	ECHS1	FAH	FTCD	GAD2	GCAT	GCDH	GLDC	GNMT	GOT1	GPT
E	HADH	HADHB	HDC	HGD	HIBADH	HIBCH	HNMT	HPD	HSD17B10	IARS	MAOA	MCDE
F	MIF	MMUT	OGDH	PAH	PCCA	PDHA2	PHGDH	PIPOX	PLOD3	PNMT	PRDX6	PSAT1
G	PSPH	SARDH	SDS	SHMT2	SRR	TH	TMLHE	TPO	TYR	TYRP1	VAR52	BUD23
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	SBH0509206	ENST00000353187.6	AADAT	ENSG00000109576	aminoadipate aminotransferase Source HGNC Symbol Acc HGNC 17929
A02	SBH0182869	ENST00000534152.1	AASDHPT	ENSG00000149313	aminoadipate-semialdehyde dehydrogenase-phosphopantetheinyl transferase Source HGNC Symbol Acc HGNC 14235
A03	SBH0079888	ENST00000393376.5	AASS	ENSG00000008311	aminoadipate-semialdehyde synthase Source HGNC Symbol Acc HGNC 17366
A04	SBH0212182	ENST00000425191.6	ABAT	ENSG00000183044	4-aminobutyrate aminotransferase Source HGNC Symbol Acc HGNC 23
A05	SBH0515770	ENST00000467291.5	AOC1	ENSG00000002726	amine oxidase, copper containing 1 Source HGNC Symbol Acc HGNC 80
A06	SBH0112462	ENST00000370841.8	ACADM	ENSG00000117054	acyl-CoA dehydrogenase medium chain Source HGNC Symbol Acc HGNC 89
A07	SBH0481999	ENST00000242592.9	ACADS	ENSG00000122971	acyl-CoA dehydrogenase short chain Source HGNC Symbol Acc HGNC 90
A08	SBH0233602	ENST00000358776.6	ACADSB	ENSG00000196177	acyl-CoA dehydrogenase short/branched chain Source HGNC Symbol Acc HGNC 91
A09	SBH0122152	ENST00000467951.1	ACAT2	ENSG00000120437	acetyl-CoA acetyltransferase 2 Source HGNC Symbol Acc HGNC 94
A10	SBH1219726	ENST00000626055.2	ADH5	ENSG00000197894	alcohol dehydrogenase 5 (class III), chi polypeptide Source HGNC Symbol Acc HGNC 253
A11	SBH0122068	ENST00000636714.1	ADSL	ENSG00000239900	adenylosuccinate lyase Source HGNC Symbol Acc HGNC 291
A12	SBH0547806	ENST00000468215.1	ADSS	ENSG00000035687	adenylosuccinate synthase Source HGNC Symbol Acc HGNC 292
B01	SBH0349249	ENST00000476698.1	AGXT	ENSG00000172482	alanine--glyoxylate and serine--pyruvate aminotransferase Source HGNC Symbol Acc HGNC 341
B02	SBH0131685	ENST00000493402.1	ALAS1	ENSG00000023330	5 -aminolevulinate synthase 1 Source HGNC Symbol Acc HGNC 396
B03	SBH0048037	ENST00000549106.1	ALDH2	ENSG00000111275	aldehyde dehydrogenase 2 family member Source HGNC Symbol Acc HGNC 404
B04	SBH0458574	ENST00000619675.4	ALDH3B1	ENSG00000006534	aldehyde dehydrogenase 3 family member B1 Source HGNC Symbol Acc HGNC 410
B05	SBH0217462	ENST00000479394.1	ALDH5A1	ENSG00000112294	aldehyde dehydrogenase 5 family member A1 Source HGNC Symbol Acc HGNC 408
B06	SBH0385728	ENST00000554501.5	ALDH6A1	ENSG00000119711	aldehyde dehydrogenase 6 family member A1 Source HGNC Symbol Acc HGNC 7179
B07	SBH0547406	ENST00000548310.1	AMDHD1	ENSG00000139344	amidohydrolase domain containing 1 Source HGNC Symbol Acc HGNC 28577
B08	SBH0198121	ENST00000637291.1	AMT	ENSG00000145020	aminomethyltransferase Source HGNC Symbol Acc HGNC 473
B09	SBH0569993	ENST00000613571.1	AOC3	ENSG00000131471	amine oxidase, copper containing 3 Source HGNC Symbol Acc HGNC 550
B10	SBH1219752	ENST00000392403.8	ASH1L	ENSG00000116539	ASH1 like histone lysine methyltransferase Source HGNC Symbol Acc HGNC 19088
B11	SBH0623276	ENST00000394308.8	ASNS	ENSG00000070669	asparagine synthetase (glutamine-hydrolyzing) Source HGNC Symbol Acc HGNC 753
B12	SBH0180722	ENST00000456349.6	ASPA	ENSG00000108381	aspartoacylase Source HGNC Symbol Acc HGNC 756
C01	SBH0473707	ENST00000528583.5	BBOX1	ENSG00000129151	gamma-butyrobetaine hydroxylase 1 Source HGNC Symbol Acc HGNC 964
C02	SBH0441341	ENST00000544418.1	BCAT1	ENSG00000060982	branched chain amino acid transaminase 1 Source HGNC Symbol Acc HGNC 976
C03	SBH0624908	ENST00000320393.9	BCKDHB	ENSG000000083123	branched chain keto acid dehydrogenase E1 subunit beta Source HGNC Symbol Acc HGNC 987
C04	SBH0183479	ENST00000520703.1	BHMT	ENSG00000145692	betaine--homocysteine S-methyltransferase Source HGNC Symbol Acc HGNC 1047
C05	SBH0351367	ENST00000481668.5	CHDH	ENSG00000016391	choline dehydrogenase Source HGNC Symbol Acc HGNC 24288
C06	SBH0529230	ENST00000358821.8	CNDP1	ENSG00000150656	carnosine dipeptidase 1 Source HGNC Symbol Acc HGNC 20675
C07	SBH0154349	ENST00000361682.10	COMT	ENSG00000093010	catechol-O-methyltransferase Source HGNC Symbol Acc HGNC 2228
C08	SBH0299569	ENST00000547768.5	DAO	ENSG00000110887	D-amino acid oxidase Source HGNC Symbol Acc HGNC 2671
C09	SBH0275682	ENST00000393056.7	DBH	ENSG00000123454	dopamine beta-hydroxylase Source HGNC Symbol Acc HGNC 2689
C10	SBH0142979	ENST00000370131.3	DBT	ENSG00000137992	dihydroliipoamide branched chain transacylase E2 Source HGNC Symbol Acc HGNC 2698
		ENST00000444		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH0460522	733.5	DDC	132437	dopa decarboxylase Source HGNC Symbol Acc HGNC 2719
C12	SBH1219953	ENST00000205402.10	DLD	ENSG00000091140	dihydrolipoamide dehydrogenase Source HGNC Symbol Acc HGNC 2898
D01	SBH1219954	ENST000000334220.9	DLST	ENSG000000119689	dihydrolipoamide S-succinyltransferase Source HGNC Symbol Acc HGNC 2911
D02	SBH0343977	ENST000000518477.5	DMGDH	ENSG000000132837	dimethylglycine dehydrogenase Source HGNC Symbol Acc HGNC 24475
D03	SBH0093368	ENST000000368547.4	ECHS1	ENSG000000127884	enoyl-CoA hydratase, short chain 1 Source HGNC Symbol Acc HGNC 3151
D04	SBH0501972	ENST000000558767.5	FAH	ENSG000000103876	fumarylacetoacetate hydrolase Source HGNC Symbol Acc HGNC 3579
D05	SBH0486339	ENST000000397746.8	FTCD	ENSG000000160282	formimidoyltransferase cyclodeaminase Source HGNC Symbol Acc HGNC 3974
D06	SBH0363903	ENST000000428517.2	GAD2	ENSG000000136750	glutamate decarboxylase 2 Source HGNC Symbol Acc HGNC 4093
D07	SBH0027111	ENST000000478203.1	GCAT	ENSG000000100116	glycine C-acetyltransferase Source HGNC Symbol Acc HGNC 4188
D08	SBH0139602	ENST000000222214.10	GCDH	ENSG000000105607	glutaryl-CoA dehydrogenase Source HGNC Symbol Acc HGNC 4189
D09	SBH0245446	ENST000000638694.1	GLDC	ENSG000000178445	glycine decarboxylase Source HGNC Symbol Acc HGNC 4313
D10	SBH0180972	ENST000000372808.4	GNMT	ENSG000000124713	glycine N-methyltransferase Source HGNC Symbol Acc HGNC 4415
D11	SBH0268812	ENST000000489349.1	GOT1	ENSG000000120053	glutamic-oxaloacetic transaminase 1 Source HGNC Symbol Acc HGNC 4432
D12	SBH0599697	ENST000000534702.5	GPT	ENSG000000167701	glutamic--pyruvic transaminase Source HGNC Symbol Acc HGNC 4552
E01	SBH0595098	ENST000000640060.1	HADH	ENSG000000138796	hydroxyacyl-CoA dehydrogenase Source HGNC Symbol Acc HGNC 4799
E02	SBH0436590	ENST000000494615.1	HADHB	ENSG000000138029	hydroxyacyl-CoA dehydrogenase trifunctional multienzyme complex subunit beta Source HGNC Symbol Acc HGNC 4803
E03	SBH0580910	ENST000000559190.5	HDC	ENSG000000140287	histidine decarboxylase Source HGNC Symbol Acc HGNC 4855
E04	SBH0163057	ENST000000476082.2	HGD	ENSG000000113924	homogentisate 1,2-dioxygenase Source HGNC Symbol Acc HGNC 4892
E05	SBH0314507	ENST000000265395.7	HIBADH	ENSG000000106049	3-hydroxyisobutyrate dehydrogenase Source HGNC Symbol Acc HGNC 4907
E06	SBH0401738	ENST000000392332.7	HIBCH	ENSG000000198130	3-hydroxyisobutyryl-CoA hydrolase Source HGNC Symbol Acc HGNC 4908
E07	SBH0356932	ENST000000480534.1	HNMT	ENSG000000150540	histamine N-methyltransferase Source HGNC Symbol Acc HGNC 5028
E08	SBH0007588	ENST000000542159.2	HPD	ENSG000000158104	4-hydroxyphenylpyruvate dioxygenase Source HGNC Symbol Acc HGNC 5147
E09	SBH0249036	ENST000000375304.9	HSD17B10	ENSG000000072506	hydroxysteroid 17-beta dehydrogenase 10 Source HGNC Symbol Acc HGNC 4800
E10	SBH0382724	ENST000000474340.1	IARS	ENSG000000196305	isoleucyl-tRNA synthetase Source HGNC Symbol Acc HGNC 5330
E11	SBH0491214	ENST000000542639.5	MAOA	ENSG000000189221	monoamine oxidase A Source HGNC Symbol Acc HGNC 6833
E12	SBH0147354	ENST000000244217.6	MCEE	ENSG000000124370	methylmalonyl-CoA epimerase Source HGNC Symbol Acc HGNC 16732
F01	SBH1220212	ENST000000215754.8	MIF	ENSG000000240972	macrophage migration inhibitory factor Source HGNC Symbol Acc HGNC 7097
F02	SBH0404755	ENST000000274813.4	MMUT	ENSG000000146085	methylmalonyl-CoA mutase Source HGNC Symbol Acc HGNC 7526
F03	SBH1220285	ENST000000444676.5	OGDH	ENSG000000105953	oxoglutarate dehydrogenase Source HGNC Symbol Acc HGNC 8124
F04	SBH0391938	ENST000000635500.1	PAH	ENSG000000171759	phenylalanine hydroxylase Source HGNC Symbol Acc HGNC 8582
F05	SBH0368145	ENST000000376286.8	PCCA	ENSG000000175198	propionyl-CoA carboxylase subunit alpha Source HGNC Symbol Acc HGNC 8653
F06	SBH0661898	ENST000000295266.5	PDHA2	ENSG000000163114	pyruvate dehydrogenase E1 alpha 2 subunit Source HGNC Symbol Acc HGNC 8807
F07	SBH0494775	ENST000000369407.3	PHGDH	ENSG000000092621	phosphoglycerate dehydrogenase Source HGNC Symbol Acc HGNC 8923
F08	SBH0509957	ENST000000580241.5	PIPOX	ENSG000000179761	pipecolic acid and sarcosine oxidase Source HGNC Symbol Acc HGNC 17804
F09	SBH0451507	ENST000000421736.1	PLOD3	ENSG000000106397	procollagen-lysine,2-oxoglutarate 5-dioxygenase 3 Source HGNC Symbol Acc HGNC 9083
F10	SBH0398860	ENST000000269582.2	PNMT	ENSG000000141744	phenylethanolamine N-methyltransferase Source HGNC Symbol Acc HGNC 9160

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH1220330	ENST00000340385.6	PRDX6	ENSG00000117592	peroxiredoxin 6 Source HGNC Symbol Acc HGNC 16753
F12	SBH0337072	ENST00000347159.6	PSAT1	ENSG00000135069	phosphoserine aminotransferase 1 Source HGNC Symbol Acc HGNC 19129
G01	SBH0171386	ENST00000421626.5	PSPH	ENSG00000146733	phosphoserine phosphatase Source HGNC Symbol Acc HGNC 9577
G02	SBH0530168	ENST00000439388.6	SARDH	ENSG00000123453	sarcosine dehydrogenase Source HGNC Symbol Acc HGNC 10536
G03	SBH0093905	ENST00000552280.5	SDS	ENSG00000135094	serine dehydratase Source HGNC Symbol Acc HGNC 10691
G04	SBH0396881	ENST00000553950.5	SHMT2	ENSG00000182199	serine hydroxymethyltransferase 2 Source HGNC Symbol Acc HGNC 10852
G05	SBH0572432	ENST00000572709.5	SRR	ENSG00000167720	serine racemase Source HGNC Symbol Acc HGNC 14398
G06	SBH0245945	ENST00000412076.1	TH	ENSG00000180176	tyrosine hydroxylase Source HGNC Symbol Acc HGNC 11782
G07	SBH0564030	ENST00000334398.8	TMLHE	ENSG00000185973	trimethyllysine hydroxylase, epsilon Source HGNC Symbol Acc HGNC 18308
G08	SBH1220490	ENST00000346956.7	TPO	ENSG00000115705	thyroid peroxidase Source HGNC Symbol Acc HGNC 12015
G09	SBH0490389	ENST00000526139.1	TYR	ENSG00000107749	tyrosinase Source HGNC Symbol Acc HGNC 12442
G10	SBH0668562	ENST00000381136.2	TYRP1	ENSG00000107165	tyrosinase related protein 1 Source HGNC Symbol Acc HGNC 12450
G11	SBH0247759	ENST00000467717.5	VAR2	ENSG00000137411	valyl-tRNA synthetase 2, mitochondrial Source HGNC Symbol Acc HGNC 21642
G12	SBH0533268	ENST00000430270.5	BUD23	ENSG00000107146	BUD23, rRNA methyltransferase and ribosome maturation factor Source HGNC Symbol Acc HGNC 16405
H01	SBH1220543	ENST00000646664.1	ACTB	ENSG00000107562	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	ENSG00000108915	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 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 SYBR Green RT-PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 μ l QuantiNova SYBR Green 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	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 μ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 μ l QuantiNova Yellow Template Dilution Buffer, 250 μ l 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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