

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

Human Amino Acid Metabolism I

Cat. no. 249950 SBHS-129ZR

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	AADAT	AANAT	AOC1	ACADM	ACAT1	ACMSD	ACY1	ADI1	AGMAT	AHCY	ALDH18A1	ALDH4A1
B	ALDH9A1	AMD1	AOX1	APIP	ARG2	ASL	ASS1	AUH	BCAT2	BCKDHA	BHMT	CAD
C	CAT	CBS	CDO1	CKB	CPS1	CTH	CYP1B1	DAO	DBT	DDC	DLD	DNMT1
D	EHHADH	ENOPH1	GAMT	GATM	GCDH	GFPT1	GLS	GLUD1	GOT2	HAAO	HMGCL	HMGCS1
E	IDO1	INMT	IVD	KMO	KYNU	LAP3	LARS	LDHA	MAOB	MAT1A	MCCC2	MPST
F	MTAP	MTR	NAGS	NIT2	NOS2	OAT	ODC1	OGDHL	OTC	OXCT2	P4HA1	PDHB
G	PPAT	PRODH	PRODH2	PYCR1	PYCR3	SAT1	SDS	SRM	TAT	TDO2	TPH2	WARS
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	SBH0305086	ENST00000392492.7	AANAT	ENSG00000129673	aralkylamine N-acetyltransferase Source HGNC Symbol Acc HGNC 19
A03	SBH0515770	ENST00000467291.5	AOC1	ENSG00000002726	amine oxidase, copper containing 1 Source HGNC Symbol Acc HGNC 80
A04	SBH0112462	ENST00000370841.8	ACADM	ENSG00000117054	acyl-CoA dehydrogenase medium chain Source HGNC Symbol Acc HGNC 89
A05	SBH0589422	ENST00000527942.5	ACAT1	ENSG00000075239	acetyl-CoA acetyltransferase 1 Source HGNC Symbol Acc HGNC 93
A06	SBH0267023	ENST00000485893.5	ACMSD	ENSG00000153086	aminocarboxymuconate semialdehyde decarboxylase Source HGNC Symbol Acc HGNC 19288
A07	SBH0370596	ENST00000637199.1	ACY1	ENSG00000243989	aminoacylase 1 Source HGNC Symbol Acc HGNC 177
A08	SBH0071550	ENST00000327435.11	ADI1	ENSG00000182551	acireductone dioxygenase 1 Source HGNC Symbol Acc HGNC 30576
A09	SBH0251229	ENST00000375826.4	AGMAT	ENSG00000116771	agmatinase Source HGNC Symbol Acc HGNC 18407
A10	SBH0488683	ENST00000468908.1	AHCY	ENSG00000101444	adenosylhomocysteinase Source HGNC Symbol Acc HGNC 343
A11	SBH0259283	ENST00000485428.1	ALDH18A1	ENSG00000059573	aldehyde dehydrogenase 18 family member A1 Source HGNC Symbol Acc HGNC 9722
A12	SBH0447629	ENST00000290597.9	ALDH4A1	ENSG00000159423	aldehyde dehydrogenase 4 family member A1 Source HGNC Symbol Acc HGNC 406
B01	SBH0362637	ENST00000354775.4	ALDH9A1	ENSG00000143149	aldehyde dehydrogenase 9 family member A1 Source HGNC Symbol Acc HGNC 412
B02	SBH0026274	ENST00000368882.7	AMD1	ENSG00000123505	adenosylmethionine decarboxylase 1 Source HGNC Symbol Acc HGNC 457
B03	SBH1219744	ENST00000454629.1	AOX1	ENSG00000138356	aldehyde oxidase 1 Source HGNC Symbol Acc HGNC 553
B04	SBH0047978	ENST00000532428.6	APIP	ENSG00000149089	APAF1 interacting protein Source HGNC Symbol Acc HGNC 17581
B05	SBH0617061	ENST00000556491.1	ARG2	ENSG00000081181	arginase 2 Source HGNC Symbol Acc HGNC 664
B06	SBH0191910	ENST00000362000.9	ASL	ENSG00000126522	argininosuccinate lyase Source HGNC Symbol Acc HGNC 746
B07	SBH1218316	ENST00000372393.7	ASS1	ENSG00000130707	argininosuccinate synthase 1 Source HGNC Symbol Acc HGNC 758
B08	SBH0577710	ENST00000303617.5	AUH	ENSG00000148090	AU RNA binding methylglutaconyl-CoA hydratase Source HGNC Symbol Acc HGNC 890
B09	SBH0204574	ENST00000402551.5	BCAT2	ENSG00000105552	branched chain amino acid transaminase 2 Source HGNC Symbol Acc HGNC 977
B10	SBH0558952	ENST00000542943.5	BCKDHA	ENSG00000248098	branched chain keto acid dehydrogenase E1, alpha polypeptide Source HGNC Symbol Acc HGNC 986
B11	SBH0183479	ENST00000520703.1	BHMT	ENSG00000145692	betaine--homocysteine S-methyltransferase Source HGNC Symbol Acc HGNC 1047
B12	SBH0040523	ENST00000491891.1	CAD	ENSG00000084774	carbamoyl-phosphate synthetase 2, aspartate transcarbamylase, and dihydroorotase Source HGNC Symbol Acc HGNC 1424
C01	SBH1219829	ENST00000648322.1	CAT	ENSG00000121691	catalase Source HGNC Symbol Acc HGNC 1516
C02	SBH0607903	ENST00000451248.5	CBS	ENSG00000160200	cystathionine-beta-synthase Source HGNC Symbol Acc HGNC 1550
C03	SBH0103329	ENST00000250535.5	CDO1	ENSG00000129596	cysteine dioxygenase type 1 Source HGNC Symbol Acc HGNC 1795
C04	SBH0049093	ENST00000554282.5	CKB	ENSG00000166165	creatine kinase B Source HGNC Symbol Acc HGNC 1991
C05	SBH0289956	ENST00000430249.6	CPS1	ENSG00000021826	carbamoyl-phosphate synthase 1 Source HGNC Symbol Acc HGNC 2323
C06	SBH0655800	ENST00000370938.7	CTH	ENSG00000116761	cystathionine gamma-lyase Source HGNC Symbol Acc HGNC 2501
C07	SBH0230648	ENST00000494864.1	CYP1B1	ENSG00000138061	cytochrome P450 family 1 subfamily B member 1 Source HGNC Symbol Acc HGNC 2597
C08	SBH0299569	ENST00000547768.5	DAO	ENSG00000110887	D-amino acid oxidase Source HGNC Symbol Acc HGNC 2671
C09	SBH0142979	ENST00000370131.3	DBT	ENSG00000137992	dihydropolipamide branched chain transacylase E2 Source HGNC Symbol Acc HGNC 2698
C10	SBH0460522	ENST00000444733.5	DDC	ENSG00000132437	dopa decarboxylase Source HGNC Symbol Acc HGNC 2719
		ENST00000205		ENSG000000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBH1219953	402.10	DLD	091140	dihydropyrimidinase Source HGNC Symbol Acc HGNC 2898
C12	SBH0209142	ENST00000340748.8	DNMT1	ENSG00000130816	DNA methyltransferase 1 Source HGNC Symbol Acc HGNC 2976
D01	SBH0116631	ENST00000456310.5	EHHADH	ENSG00000113790	enoyl-CoA hydratase and 3-hydroxyacyl CoA dehydrogenase Source HGNC Symbol Acc HGNC 3247
D02	SBH0301907	ENST00000273920.8	ENOPH1	ENSG00000145293	enolase-phosphatase 1 Source HGNC Symbol Acc HGNC 24599
D03	SBH0076307	ENST00000252288.7	GAMT	ENSG00000130005	guanidinoacetate N-methyltransferase Source HGNC Symbol Acc HGNC 4136
D04	SBH0659249	ENST00000396659.8	GATM	ENSG00000171766	glycine amidinotransferase Source HGNC Symbol Acc HGNC 4175
D05	SBH0139602	ENST00000222214.10	GCDH	ENSG00000105607	glutaryl-CoA dehydrogenase Source HGNC Symbol Acc HGNC 4189
D06	SBH0283517	ENST00000494201.1	GFPT1	ENSG00000198380	glutamine--fructose-6-phosphate transaminase 1 Source HGNC Symbol Acc HGNC 4241
D07	SBH0027292	ENST00000409626.5	GLS	ENSG00000115419	glutaminase Source HGNC Symbol Acc HGNC 4331
D08	SBH0257829	ENST00000277865.5	GLUD1	ENSG00000148672	glutamate dehydrogenase 1 Source HGNC Symbol Acc HGNC 4335
D09	SBH0177371	ENST00000434819.2	GOT2	ENSG00000125166	glutamic-oxaloacetic transaminase 2 Source HGNC Symbol Acc HGNC 4433
D10	SBH0041573	ENST00000294973.11	HAO	ENSG00000162882	3-hydroxyanthranilate 3,4-dioxygenase Source HGNC Symbol Acc HGNC 4796
D11	SBH0475182	ENST00000235958.4	HMGCL	ENSG00000117305	3-hydroxy-3-methylglutaryl-CoA lyase Source HGNC Symbol Acc HGNC 5005
D12	SBH0203453	ENST00000514610.1	HMGCS1	ENSG00000112972	3-hydroxy-3-methylglutaryl-CoA synthase 1 Source HGNC Symbol Acc HGNC 5007
E01	SBH0084217	ENST00000253513.11	IDO1	ENSG00000131203	indoleamine 2,3-dioxygenase 1 Source HGNC Symbol Acc HGNC 6059
E02	SBH0560411	ENST00000484180.1	INMT	ENSG00000241644	indolethylamine N-methyltransferase Source HGNC Symbol Acc HGNC 6069
E03	SBH0520971	ENST00000651168.1	IVD	ENSG00000128928	isovaleryl-CoA dehydrogenase Source HGNC Symbol Acc HGNC 6186
E04	SBH0439207	ENST00000366558.7	KMO	ENSG00000117009	kynurenine 3-monooxygenase Source HGNC Symbol Acc HGNC 6381
E05	SBH0230907	ENST00000375773.6	KYNU	ENSG00000115919	kynureninase Source HGNC Symbol Acc HGNC 6469
E06	SBH0017086	ENST00000508014.5	LAP3	ENSG00000202549	leucine aminopeptidase 3 Source HGNC Symbol Acc HGNC 18449
E07	SBH0597600	ENST00000504611.1	LARS	ENSG00000133706	leucyl-tRNA synthetase Source HGNC Symbol Acc HGNC 6512
E08	SBH1225370	ENST00000540430.5	LDHA	ENSG00000134333	lactate dehydrogenase A Source HGNC Symbol Acc HGNC 6535
E09	SBH0081757	ENST00000487544.1	MAOB	ENSG00000206953	monoamine oxidase B Source HGNC Symbol Acc HGNC 6834
E10	SBH0138920	ENST00000455001.1	MAT1A	ENSG00000151224	methionine adenosyltransferase 1A Source HGNC Symbol Acc HGNC 6903
E11	SBH0276710	ENST00000340941.11	MCCC2	ENSG00000131844	methylcrotonoyl-CoA carboxylase 2 Source HGNC Symbol Acc HGNC 6937
E12	SBH0261918	ENST00000429360.5	MPST	ENSG00000128309	mercaptopyruvate sulfurtransferase Source HGNC Symbol Acc HGNC 7223
F01	SBH0037485	ENST00000581962.1	MTAP	ENSG00000209981	methylthioadenosine phosphorylase Source HGNC Symbol Acc HGNC 7413
F02	SBH0608099	ENST00000366577.10	MTR	ENSG00000116984	5-methyltetrahydrofolate-homocysteine methyltransferase Source HGNC Symbol Acc HGNC 7468
F03	SBH0058585	ENST00000589767.1	NAGS	ENSG00000161653	N-acetylglutamate synthase Source HGNC Symbol Acc HGNC 17996
F04	SBH0643076	ENST00000497785.1	NIT2	ENSG00000114021	nitrilase family member 2 Source HGNC Symbol Acc HGNC 29878
F05	SBH0408796	ENST00000313735.10	NOS2	ENSG00000200717	nitric oxide synthase 2 Source HGNC Symbol Acc HGNC 7873
F06	SBH0455809	ENST00000539214.5	OAT	ENSG00000206515	ornithine aminotransferase Source HGNC Symbol Acc HGNC 8091
F07	SBH0286890	ENST00000405333.5	ODC1	ENSG00000115758	ornithine decarboxylase 1 Source HGNC Symbol Acc HGNC 8109
F08	SBH0318763	ENST00000374103.9	OGDHL	ENSG00000197444	oxoglutarate dehydrogenase like Source HGNC Symbol Acc HGNC 25590
F09	SBH0350829	ENST00000643344.1	OTC	ENSG00000203647	ornithine carbamoyltransferase Source HGNC Symbol Acc HGNC 8512
F10	SBH0305524	ENST00000327582.5	OXCT2	ENSG00000198754	3-oxoacid CoA-transferase 2 Source HGNC Symbol Acc HGNC 18606

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBH0252226	ENST00000394890.6	P4HA1	ENSG00000122884	prolyl 4-hydroxylase subunit alpha 1 Source HGNC Symbol Acc HGNC 8546
F12	SBH1220294	ENST00000383714.8	PDHB	ENSG00000168291	pyruvate dehydrogenase E1 beta subunit Source HGNC Symbol Acc HGNC 8808
G01	SBH0281159	ENST00000507724.1	PPAT	ENSG00000128059	phosphoribosyl pyrophosphate amidotransferase Source HGNC Symbol Acc HGNC 9238
G02	SBH0590899	ENST00000313755.9	PRODH	ENSG00000100033	proline dehydrogenase 1 Source HGNC Symbol Acc HGNC 9453
G03	SBH0168726	ENST00000587695.1	PRODH2	ENSG00000250799	proline dehydrogenase 2 Source HGNC Symbol Acc HGNC 17325
G04	SBH0275904	ENST00000579366.5	PYCR1	ENSG00000183010	pyrroline-5-carboxylate reductase 1 Source HGNC Symbol Acc HGNC 9721
G05	SBH0307361	ENST00000220966.10	PYCR3	ENSG00000104524	pyrroline-5-carboxylate reductase 3 Source HGNC Symbol Acc HGNC 25846
G06	SBH0302199	ENST00000379254.5	SAT1	ENSG00000130066	spermidine/spermine N1-acetyltransferase 1 Source HGNC Symbol Acc HGNC 10540
G07	SBH0093905	ENST00000552280.5	SDS	ENSG00000135094	serine dehydratase Source HGNC Symbol Acc HGNC 10691
G08	SBH0333664	ENST00000376957.7	SRM	ENSG00000116649	spermidine synthase Source HGNC Symbol Acc HGNC 11296
G09	SBH0437274	ENST00000355962.5	TAT	ENSG00000198650	tyrosine aminotransferase Source HGNC Symbol Acc HGNC 11573
G10	SBH0386775	ENST00000512584.5	TDO2	ENSG00000151790	tryptophan 2,3-dioxygenase Source HGNC Symbol Acc HGNC 11708
G11	SBH0514467	ENST00000333850.4	TPH2	ENSG00000139287	tryptophan hydroxylase 2 Source HGNC Symbol Acc HGNC 20692
G12	SBH0245206	ENST00000392882.7	WARS	ENSG00000140105	tryptophanyl-tRNA synthetase Source HGNC Symbol Acc HGNC 12729
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 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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