Table S2. The list of the SIRT3 substrates retrieved by the data mining and used as an input for pathway enrichment analysis

Gene	Description
AIBG	alpha-1-B glycoprotein [Source:HGNC Symbol;Acc:HGNC:5]
A2M	alpha-2-macroglobulin [Source:HGNC Symbol;Acc:HGNC:7]
AADAT	aminoadipate aminotransferase [Source:HGNC Symbol;Acc:HGNC:17929]
AASS	aminoadipate-semialdehyde synthase [Source:HGNC Symbol;Acc:HGNC:17366]
ABAT	4-aminobutyrate aminotransferase [Source:HGNC Symbol;Acc:HGNC:23]
ABCB7	ATP binding cassette subfamily B member 7 [Source:HGNC Symbol;Acc:HGNC:48]
ABHD11	abhydrolase domain containing 11 [Source:HGNC Symbol;Acc:HGNC:16407]
ACAA2	acetyl-CoA acyltransferase 2 [Source:HGNC Symbol;Acc:HGNC:83]
ACAD10	acyl-CoA dehydrogenase family member 10 [Source:HGNC Symbol;Acc:HGNC:21597]
ACAD9	acyl-CoA dehydrogenase family member 9 [Source:HGNC Symbol;Acc:HGNC:21497]
ACADL	acyl-CoA dehydrogenase, long chain [Source:HGNC Symbol;Acc:HGNC:88]
ACADM	acyl-CoA dehydrogenase, C-4 to C-12 straight chain [Source:HGNC Symbol;Acc:HGNC:89]
ACADS	acyl-CoA dehydrogenase, C-2 to C-3 short chain [Source:HGNC Symbol;Acc:HGNC:90]
ACADSB	acyl-CoA dehydrogenase, short/branched chain [Source:HGNC Symbol;Acc:HGNC:91]
ACADVL	acyl-CoA dehydrogenase, very long chain [Source:HGNC Symbol;Acc:HGNC:92]
ACAT1	acetyl-CoA acetyltransferase 1 [Source:HGNC Symbol;Acc:HGNC:93]
ACO2	aconitase 2 [Source:HGNC Symbol;Acc:HGNC:118]
ACOT1	acyl-CoA thioesterase 1 [Source:HGNC Symbol;Acc:HGNC:33128]
ACOT13	acyl-CoA thioesterase 13 [Source:HGNC Symbol;Acc:HGNC:20999]
ACOT2	acyl-CoA thioesterase 2 [Source:HGNC Symbol;Acc:HGNC:18431]
ACOT9	acyl-CoA thioesterase 9 [Source:HGNC Symbol;Acc:HGNC:17152]
ACOX1	acyl-CoA oxidase 1 [Source:HGNC Symbol;Acc:HGNC:119]
ACSF2	acyl-CoA synthetase family member 2 [Source:HGNC Symbol;Acc:HGNC:26101]
ACSF3	acyl-CoA synthetase family member 3 [Source:HGNC Symbol;Acc:HGNC:27288]
ACSL5	acyl-CoA synthetase long-chain family member 5 [Source:HGNC Symbol;Acc:HGNC:16526]
ACSL6	acyl-CoA synthetase long-chain family member 6 [Source:HGNC Symbol;Acc:HGNC:16496]
ACSM1	acyl-CoA synthetase medium-chain family member 1 [Source:HGNC Symbol;Acc:HGNC:18049]

ACSM3	acyl-CoA synthetase medium-chain family member 3 [Source:HGNC Symbol;Acc:HGNC:10522]
ACSM5	acyl-CoA synthetase medium-chain family member 5 [Source:HGNC Symbol;Acc:HGNC:26060]
ACSS2	acyl-CoA synthetase short-chain family member 2 [Source:HGNC Symbol;Acc:HGNC:15814]
ACSS3	acyl-CoA synthetase short-chain family member 3 [Source:HGNC Symbol;Acc:HGNC:24723]
ACTB	actin beta [Source:HGNC Symbol;Acc:HGNC:132]
ACTN1	actinin alpha 1 [Source:HGNC Symbol;Acc:HGNC:163]
ACTN4	actinin alpha 4 [Source:HGNC Symbol;Acc:HGNC:166]
ADCK3	aarF domain containing kinase 3 [Source:HGNC Symbol;Acc:HGNC:16812]
AFG3L2	AFG3 like matrix AAA peptidase subunit 2 [Source:HGNC Symbol;Acc:HGNC:315]
AGMAT	agmatinase [Source:HGNC Symbol;Acc:HGNC:18407]
AGXT2	alanineglyoxylate aminotransferase 2 [Source:HGNC Symbol;Acc:HGNC:14412]
AK3	adenylate kinase 3 [Source:HGNC Symbol;Acc:HGNC:17376]
AK4	adenylate kinase 4 [Source:HGNC Symbol;Acc:HGNC:363]
AKR7A2	aldo-keto reductase family 7 member A2 [Source:HGNC Symbol;Acc:HGNC:389]
ALAS1	5'-aminolevulinate synthase 1 [Source:HGNC Symbol;Acc:HGNC:396]
ALDH1B1	aldehyde dehydrogenase 1 family member B1 [Source:HGNC Symbol;Acc:HGNC:407]
ALDH1L2	aldehyde dehydrogenase 1 family member L2 [Source:HGNC Symbol;Acc:HGNC:26777]
ALDH2	aldehyde dehydrogenase 2 family (mitochondrial) [Source:HGNC Symbol;Acc:HGNC:404]
ALDH4A1	aldehyde dehydrogenase 4 family member A1 [Source:HGNC Symbol;Acc:HGNC:406]
ALDH5A1	aldehyde dehydrogenase 5 family member A1 [Source:HGNC Symbol;Acc:HGNC:408]
ALDH6A1	aldehyde dehydrogenase 6 family member A1 [Source:HGNC Symbol;Acc:HGNC:7179]
ALDOB	aldolase, fructose-bisphosphate B [Source:HGNC Symbol;Acc:HGNC:417]
AMACR	alpha-methylacyl-CoA racemase [Source:HGNC Symbol;Acc:HGNC:451]
AMT	aminomethyltransferase [Source:HGNC Symbol;Acc:HGNC:473]
ANLN	anillin actin binding protein [Source:HGNC Symbol;Acc:HGNC:14082]
ANXA5	annexin A5 [Source:HGNC Symbol;Acc:HGNC:543]
APRT	adenine phosphoribosyltransferase [Source:HGNC Symbol;Acc:HGNC:626]
ARG1	arginase 1 [Source:HGNC Symbol;Acc:HGNC:663]

4T 4D 2.4	ATTO A 11 AAAA 1 11 AAAA 1 11 AAAA 1 11 AAAA 11 AAAAA 11 AAAA 11 AAAAA 11 AAAA 11 AAAAA 11 AAAAA 11 AAAA 11 AAAAA 11 AAAA 11 AAAAA 11 AAAA 11 AAAAA 11 AAAAAA
ATAD3A	ATPase family, AAA domain containing 3A [Source:HGNC Symbol;Acc:HGNC:25567]
ATAD3B	ATPase family, AAA domain containing 3B [Source:HGNC Symbol;Acc:HGNC:24007]
	ATP synthase, H+ transporting, mitochondrial F1 complex, alpha subunit 1, cardiac muscle [Source:HGNC
ATP5A1	Symbol;Acc:HGNC:823]
	ATP synthase, H+ transporting, mitochondrial F1 complex, beta polypeptide [Source:HGNC
ATP5B	Symbol;Acc:HGNC:830]
	ATP synthase, H+ transporting, mitochondrial F1 complex, gamma polypeptide 1 [Source:HGNC
ATP5C1	Symbol;Acc:HGNC:833]
	ATP synthase, H+ transporting, mitochondrial F1 complex, epsilon subunit [Source:HGNC
ATP5E	Symbol;Acc:HGNC:838]
ATP5F1	ATP synthase, H+ transporting, mitochondrial Fo complex subunit B1 [Source:HGNC Symbol;Acc:HGNC:840]
ATP5H	ATP synthase, H+ transporting, mitochondrial Fo complex subunit D [Source:HGNC Symbol;Acc:HGNC:845]
ATP5J	ATP synthase, H+ transporting, mitochondrial Fo complex subunit F6 [Source:HGNC Symbol;Acc:HGNC:847]
ATP5L	ATP synthase, H+ transporting, mitochondrial Fo complex subunit G [Source:HGNC Symbol;Acc:HGNC:14247]
ATP5O	ATP synthase, H+ transporting, mitochondrial F1 complex, O subunit [Source:HGNC Symbol;Acc:HGNC:850]
ATPIF1	ATPase inhibitory factor 1 [Source:HGNC Symbol;Acc:HGNC:871]
AUH	AU RNA binding protein/enoyl-CoA hydratase [Source:HGNC Symbol;Acc:HGNC:890]
BAP1	BRCA1 associated protein 1 [Source:HGNC Symbol;Acc:HGNC:950]
BAZ1B	bromodomain adjacent to zinc finger domain 1B [Source:HGNC Symbol;Acc:HGNC:961]
<i>BCKDHA</i>	branched chain keto acid dehydrogenase E1, alpha polypeptide [Source:HGNC Symbol;Acc:HGNC:986]
BCOR	BCL6 corepressor [Source:HGNC Symbol;Acc:HGNC:20893]
BDH1	3-hydroxybutyrate dehydrogenase, type 1 [Source:HGNC Symbol;Acc:HGNC:1027]
BOLA3	bolA family member 3 [Source:HGNC Symbol;Acc:HGNC:24415]
BPHL	biphenyl hydrolase-like (serine hydrolase) [Source:HGNC Symbol;Acc:HGNC:1094]
BTN1A1 (696)	butyrophilin subfamily 1 member A1 [Source:HGNC Symbol;Acc:HGNC:1135]
C11orf58	chromosome 11 open reading frame 58 [Source:HGNC Symbol;Acc:HGNC:16990]
CIQBP	complement component 1, q subcomponent binding protein [Source:HGNC Symbol;Acc:HGNC:1243]
C5orf63	chromosome 5 open reading frame 63 [Source:HGNC Symbol;Acc:HGNC:40051]
CAP1	adenylate cyclase associated protein 1 [Source:HGNC Symbol;Acc:HGNC:20040]

capping actin protein of muscle Z-line alpha subunit 1 [Source:HGNC Symbol;Acc:HGNC:1488]
capping actin protein of muscle Z-line alpha subunit 2 [Source:HGNC Symbol;Acc:HGNC:1490]
catalase [Source:HGNC Symbol;Acc:HGNC:1516]
carbonyl reductase 4 [Source:HGNC Symbol;Acc:HGNC:25891]
cystathionine-beta-synthase [Source:HGNC Symbol;Acc:HGNC:1550]
chromodomain helicase DNA binding protein 9 [Source:HGNC Symbol;Acc:HGNC:25701]
choline dehydrogenase [Source:HGNC Symbol;Acc:HGNC:24288]
CDGSH iron sulfur domain 3 [Source:HGNC Symbol;Acc:HGNC:27578]
chloride intracellular channel 1 [Source:HGNC Symbol;Acc:HGNC:2062]
clathrin interactor 1 [Source:HGNC Symbol;Acc:HGNC:23186]
caseinolytic mitochondrial matrix peptidase chaperone subunit [Source:HGNC Symbol;Acc:HGNC:2088]
citrate lyase beta like [Source:HGNC Symbol;Acc:HGNC:18355]
coatomer protein complex subunit beta 2 [Source:HGNC Symbol;Acc:HGNC:2232]
coenzyme Q9 [Source:HGNC Symbol;Acc:HGNC:25302]
cytochrome c oxidase subunit 4I1 [Source:HGNC Symbol;Acc:HGNC:2265]
cytochrome c oxidase subunit 7A2 [Source:HGNC Symbol;Acc:HGNC:2288]
cytochrome c oxidase subunit 7C [Source:HGNC Symbol;Acc:HGNC:2292]
carbamoyl-phosphate synthase 1 [Source:HGNC Symbol;Acc:HGNC:2323]
carnitine palmitoyltransferase 2 [Source:HGNC Symbol;Acc:HGNC:2330]
cysteine rich protein 2 [Source:HGNC Symbol;Acc:HGNC:2361]
citrate synthase [Source:HGNC Symbol;Acc:HGNC:2422]
chorionic somatomammotropin hormone like 1 [Source:HGNC Symbol;Acc:HGNC:2442]
cytochrome b5 reductase 3 [Source:HGNC Symbol;Acc:HGNC:2873]
cytochrome c, somatic [Source:HGNC Symbol;Acc:HGNC:19986]
cytochrome P450 family 1 subfamily A member 2 [Source:HGNC Symbol;Acc:HGNC:2596]
cytochrome P450 family 27 subfamily A member 1 [Source:HGNC Symbol;Acc:HGNC:2605]
death associated protein kinase 2 [Source:HGNC Symbol;Acc:HGNC:2675]
diazepam binding inhibitor, acyl-CoA binding protein [Source:HGNC Symbol;Acc:HGNC:2690]

DBT	dihydrolipoamide branched chain transacylase E2 [Source:HGNC Symbol;Acc:HGNC:2698]
DDT	D-dopachrome tautomerase [Source:HGNC Symbol;Acc:HGNC:2732]
DDX18	DEAD-box helicase 18 [Source:HGNC Symbol;Acc:HGNC:2741]
DECR1	2,4-dienoyl-CoA reductase 1, mitochondrial [Source:HGNC Symbol;Acc:HGNC:2753]
DHRS2	dehydrogenase/reductase 2 [Source:HGNC Symbol;Acc:HGNC:18349]
DHRS4	dehydrogenase/reductase 4 [Source:HGNC Symbol;Acc:HGNC:16985]
DHTKD1	dehydrogenase E1 and transketolase domain containing 1 [Source:HGNC Symbol;Acc:HGNC:23537]
DLAT	dihydrolipoamide S-acetyltransferase [Source:HGNC Symbol;Acc:HGNC:2896]
DLD	dihydrolipoamide dehydrogenase [Source:HGNC Symbol;Acc:HGNC:2898]
DLST	dihydrolipoamide S-succinyltransferase [Source:HGNC Symbol;Acc:HGNC:2911]
DMGDH	dimethylglycine dehydrogenase [Source:HGNC Symbol;Acc:HGNC:24475]
DNAJA3	DnaJ heat shock protein family (Hsp40) member A3 [Source:HGNC Symbol;Acc:HGNC:11808]
ECH1	enoyl-CoA hydratase 1, peroxisomal [Source:HGNC Symbol;Acc:HGNC:3149]
ECHDC1	ethylmalonyl-CoA decarboxylase 1 [Source:HGNC Symbol;Acc:HGNC:21489]
ECHDC2	enoyl-CoA hydratase domain containing 2 [Source:HGNC Symbol;Acc:HGNC:23408]
ECHDC3	enoyl-CoA hydratase domain containing 3 [Source:HGNC Symbol;Acc:HGNC:23489]
ECHS1	enoyl-CoA hydratase, short chain, 1, mitochondrial [Source:HGNC Symbol;Acc:HGNC:3151]
ECI1	enoyl-CoA delta isomerase 1 [Source:HGNC Symbol;Acc:HGNC:2703]
ECI2	enoyl-CoA delta isomerase 2 [Source:HGNC Symbol;Acc:HGNC:14601]
EEA1	early endosome antigen 1 [Source:HGNC Symbol;Acc:HGNC:3185]
EFHD2	EF-hand domain family member D2 [Source:HGNC Symbol;Acc:HGNC:28670]
EHHADH	enoyl-CoA, hydratase/3-hydroxyacyl CoA dehydrogenase [Source:HGNC Symbol;Acc:HGNC:3247]
ENO1	enolase 1 [Source:HGNC Symbol;Acc:HGNC:3350]
EPHX2	epoxide hydrolase 2 [Source:HGNC Symbol;Acc:HGNC:3402]
ETFA	electron transfer flavoprotein alpha subunit [Source:HGNC Symbol;Acc:HGNC:3481]
ETFB	electron transfer flavoprotein beta subunit [Source:HGNC Symbol;Acc:HGNC:3482]
ETFDH	electron transfer flavoprotein dehydrogenase [Source:HGNC Symbol;Acc:HGNC:3483]
ETHE1	ETHE1, persulfide dioxygenase [Source:HGNC Symbol;Acc:HGNC:23287]

FAHD1	fumarylacetoacetate hydrolase domain containing 1 [Source:HGNC Symbol;Acc:HGNC:14169]
FAHD2A	fumarylacetoacetate hydrolase domain containing 2A [Source:HGNC Symbol;Acc:HGNC:24252]
FAHD2B	fumarylacetoacetate hydrolase domain containing 2B [Source:HGNC Symbol;Acc:HGNC:25318]
FASN	fatty acid synthase [Source:HGNC Symbol;Acc:HGNC:3594]
FASTKD1	FAST kinase domains 1 [Source:HGNC Symbol;Acc:HGNC:26150]
FDPS	farnesyl diphosphate synthase [Source:HGNC Symbol;Acc:HGNC:3631]
FDX1	ferredoxin 1 [Source:HGNC Symbol;Acc:HGNC:3638]
FECH	ferrochelatase [Source:HGNC Symbol;Acc:HGNC:3647]
FH	fumarate hydratase [Source:HGNC Symbol;Acc:HGNC:3700]
FMO1	flavin containing monooxygenase 1 [Source:HGNC Symbol;Acc:HGNC:3769]
FOSL2	FOS like 2, AP-1 transcription factor subunit [Source:HGNC Symbol;Acc:HGNC:3798]
FOXO3	forkhead box O3 [Source:HGNC Symbol;Acc:HGNC:3821]
FXN	frataxin [Source:HGNC Symbol;Acc:HGNC:3951]
GBE1	glucan (1,4-alpha-), branching enzyme 1 [Source:HGNC Symbol;Acc:HGNC:4180]
GCAT	glycine C-acetyltransferase [Source:HGNC Symbol;Acc:HGNC:4188]
GCDH	glutaryl-CoA dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4189]
GFM1	G elongation factor, mitochondrial 1 [Source:HGNC Symbol;Acc:HGNC:13780]
GFM2	G elongation factor, mitochondrial 2 [Source:HGNC Symbol;Acc:HGNC:29682]
GLDC	glycine decarboxylase [Source:HGNC Symbol;Acc:HGNC:4313]
GLRX5	glutaredoxin 5 [Source:HGNC Symbol;Acc:HGNC:20134]
GLS	glutaminase [Source:HGNC Symbol;Acc:HGNC:4331]
GLS2	glutaminase 2 [Source:HGNC Symbol;Acc:HGNC:29570]
GLUD1	glutamate dehydrogenase 1 [Source:HGNC Symbol;Acc:HGNC:4335]
GLYAT	glycine-N-acyltransferase [Source:HGNC Symbol;Acc:HGNC:13734]
GNMT	glycine N-methyltransferase [Source:HGNC Symbol;Acc:HGNC:4415]
GOT2	glutamic-oxaloacetic transaminase 2 [Source:HGNC Symbol;Acc:HGNC:4433]
GPAM	glycerol-3-phosphate acyltransferase, mitochondrial [Source:HGNC Symbol;Acc:HGNC:24865]
GPI	glucose-6-phosphate isomerase [Source:HGNC Symbol;Acc:HGNC:4458]

GRPEL1 GrpE like 1, mitochondrial [Source:HGNC Symbol;Acc:HGNC:19696] GSDMD gasdermin D [Source:HGNC Symbol;Acc:HGNC:25697] GSTK1 glutathione S-transferase kappa 1 [Source:HGNC Symbol;Acc:HGNC:16906] H3F3A H3 histone, family 3A [Source:HGNC Symbol;Acc:HGNC:4764] H3F3B H3 histone, family 3B (H3.3B) [Source:HGNC Symbol;Acc:HGNC:4765] H6PD hexose-6-phosphate dehydrogenase/glucose 1-dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4799] hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), alpha subunit [Source:HGNC Symbol;Acc:HGNC:4801] hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta sub [Source:HGNC Symbol;Acc:HGNC:4803] HDAC7 histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:11067] HELB helicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:17196] HELT helt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783] HIBADH 3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907] HIBCH 3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4908] HIF1A hypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910] HINT2 histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344] HISTIH3A histone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766] HISTIH3B histone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4766] HISTIH3C histone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]		
GSDMD gasdermin D [Source:HGNC Symbol;Acc:HGNC:25697] GSTK1 glutathione S-transferase kappa 1 [Source:HGNC Symbol;Acc:HGNC:16906] H3F3A H3 histone, family 3A [Source:HGNC Symbol;Acc:HGNC:4764] H3F3B H3 histone, family 3B (H3.3B) [Source:HGNC Symbol;Acc:HGNC:4765] H6PD hexose-6-phosphate dehydrogenase/glucose 1-dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4795] HADH hydroxyacyl-CoA dehydrogenase/Source:HGNC Symbol;Acc:HGNC:4799] hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), alpha subunit [Source:HGNC Symbol;Acc:HGNC:4801] hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta sub hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta sub [Source:HGNC Symbol;Acc:HGNC:4803] HDAC7 histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:14067] HELB helt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783] HIBADH 3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907] HIBCH 3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4908] HIF1A hypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910] HINT2 histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344] HISTIH3A histone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766] HISTIH3B histone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4766] HISTIH3C histone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	GPT2	glutamic pyruvate transaminase (alanine aminotransferase) 2 [Source:HGNC Symbol;Acc:HGNC:18062]
GSTK1 glutathione S-transferase kappa 1 [Source:HGNC Symbol;Acc:HGNC:16906] H3F3A H3 histone, family 3A [Source:HGNC Symbol;Acc:HGNC:4764] H3F3B H3 histone, family 3B (H3.3B) [Source:HGNC Symbol;Acc:HGNC:4765] hexose-6-phosphate dehydrogenase/glucose 1-dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4795] hydroxyacyl-CoA dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4799] hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), alpha subunit [Source:HGNC Symbol;Acc:HGNC:4801] hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta sub [Source:HGNC Symbol;Acc:HGNC:4803] histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:14067] helicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:17196] helt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783] HBADH 3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907] HBCH 3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908] hypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:18344] histone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766] HIST1H3A histone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4776] histone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4768] histone cluster 1, H3c [Source:HGN	GRPEL1	
H3F3AH3 histone, family 3A [Source:HGNC Symbol;Acc:HGNC:4764]H3F3BH3 histone, family 3B (H3.3B) [Source:HGNC Symbol;Acc:HGNC:4765]H6PDhexose-6-phosphate dehydrogenase/glucose 1-dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4795]HADHhydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), alphaHADHAsubunit [Source:HGNC Symbol;Acc:HGNC:4801]hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta subHADHB[Source:HGNC Symbol;Acc:HGNC:4803]HDAC7histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:14067]HELBhelicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:17196]HELThelt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783]HIBADH3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907]HIBCH3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	GSDMD	gasdermin D [Source:HGNC Symbol;Acc:HGNC:25697]
H3F3BH3 histone, family 3B (H3.3B) [Source:HGNC Symbol;Acc:HGNC:4765]H6PDhexose-6-phosphate dehydrogenase/glucose 1-dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4795]HADHhydroxyacyl-CoA dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4799]hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), alphaHADHAsubunit [Source:HGNC Symbol;Acc:HGNC:4801]hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta sub[Source:HGNC Symbol;Acc:HGNC:4803]HDAC7histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:114067]HELBhelicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:17196]HELThelt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783]HIBADH3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907]HIBCH3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	GSTK1	glutathione S-transferase kappa 1 [Source:HGNC Symbol;Acc:HGNC:16906]
H6PDhexose-6-phosphate dehydrogenase/glucose 1-dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4795]HADHhydroxyacyl-CoA dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4799]hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), alphaHADHAsubunit [Source:HGNC Symbol;Acc:HGNC:4801]hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta sub[Source:HGNC Symbol;Acc:HGNC:4803]HDAC7histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:14067]HELBhelicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:33783]HELThelt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783]HIBADH3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907]HIBCH3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	<i>H3F3A</i>	H3 histone, family 3A [Source:HGNC Symbol;Acc:HGNC:4764]
HADHhydroxyacyl-CoA dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4799]hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), alphaHADHAsubunit [Source:HGNC Symbol;Acc:HGNC:4801]hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta sub[Source:HGNC Symbol;Acc:HGNC:4803]HDAC7histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:14067]HELBhelicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:17196]HELThelt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783]HIBADH3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907]HIBCH3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	H3F3B	H3 histone, family 3B (H3.3B) [Source:HGNC Symbol;Acc:HGNC:4765]
hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), alpha subunit [Source:HGNC Symbol;Acc:HGNC:4801] hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta sub [Source:HGNC Symbol;Acc:HGNC:4803] HDAC7 histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:14067] HELB helicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:17196] HELT helt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783] HIBADH 3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907] HIBCH 3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908] HIF1A hypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910] HINT2 histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344] HIST1H3A histone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766] HIST1H3B histone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776] HIST1H3C histone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	H6PD	hexose-6-phosphate dehydrogenase/glucose 1-dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4795]
HADHAsubunit [Source:HGNC Symbol;Acc:HGNC:4801]hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta sub[Source:HGNC Symbol;Acc:HGNC:4803]HDAC7histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:14067]HELBhelicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:3783]HELThelt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783]HIBADH3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907]HIBCH3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	HADH	hydroxyacyl-CoA dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4799]
hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), beta sub [Source:HGNC Symbol;Acc:HGNC:4803] HDAC7 histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:14067] HELB helicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:17196] HELT helt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783] HIBADH 3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907] HIBCH 3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908] HIF1A hypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910] HINT2 histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344] HIST1H3A histone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766] HIST1H3B histone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776] HIST1H3C histone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]		hydroxyacyl-CoA dehydrogenase/3-ketoacyl-CoA thiolase/enoyl-CoA hydratase (trifunctional protein), alpha
HADHB [Source:HGNC Symbol;Acc:HGNC:4803] HDAC7	<i>HADHA</i>	
HDAC7histone deacetylase 7 [Source:HGNC Symbol;Acc:HGNC:14067]HELBhelicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:17196]HELThelt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783]HIBADH3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907]HIBCH3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	ļ	
HELBhelicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:17196]HELThelt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783]HIBADH3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907]HIBCH3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	HADHB	[Source:HGNC Symbol;Acc:HGNC:4803]
HELThelt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783]HIBADH3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907]HIBCH3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]		
HIBADH3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907]HIBCH3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	HELB	helicase (DNA) B [Source:HGNC Symbol;Acc:HGNC:17196]
HIBCH3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	HELT	helt bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:33783]
HIF1Ahypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	HIBADH	3-hydroxyisobutyrate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:4907]
HINT2histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	HIBCH	3-hydroxyisobutyryl-CoA hydrolase [Source:HGNC Symbol;Acc:HGNC:4908]
HIST1H3Ahistone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	HIF1A	hypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]
HIST1H3Bhistone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]HIST1H3Chistone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	HINT2	histidine triad nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18344]
HIST1H3C histone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]	HIST1H3A	histone cluster 1, H3a [Source:HGNC Symbol;Acc:HGNC:4766]
	HIST1H3B	histone cluster 1, H3b [Source:HGNC Symbol;Acc:HGNC:4776]
HIGHLIAD 11. 1 1 1121 IG HONG G 1 1 1 HONG AZGZ	HIST1H3C	histone cluster 1, H3c [Source:HGNC Symbol;Acc:HGNC:4768]
[HIST1H3D] Inistone cluster I, H3d [Source:HGNC Symbol;Acc:HGNC:4/6/]	HIST1H3D	histone cluster 1, H3d [Source:HGNC Symbol;Acc:HGNC:4767]
HIST1H3E histone cluster 1, H3e [Source:HGNC Symbol;Acc:HGNC:4769]	HIST1H3E	histone cluster 1, H3e [Source:HGNC Symbol;Acc:HGNC:4769]
HIST1H3F histone cluster 1, H3f [Source:HGNC Symbol;Acc:HGNC:4773]	HIST1H3F	histone cluster 1, H3f [Source:HGNC Symbol;Acc:HGNC:4773]
HIST1H3G histone cluster 1, H3g [Source:HGNC Symbol;Acc:HGNC:4772]	HIST1H3G	histone cluster 1, H3g [Source:HGNC Symbol;Acc:HGNC:4772]
HIST1H3H histone cluster 1, H3h [Source:HGNC Symbol;Acc:HGNC:4775]	HIST1H3H	histone cluster 1, H3h [Source:HGNC Symbol;Acc:HGNC:4775]
HIST1H3I histone cluster 1, H3i [Source:HGNC Symbol;Acc:HGNC:4771]	HIST1H3I	histone cluster 1, H3i [Source:HGNC Symbol;Acc:HGNC:4771]
HIST1H3J histone cluster 1, H3j [Source:HGNC Symbol;Acc:HGNC:4774]	HIST1H3J	histone cluster 1, H3j [Source:HGNC Symbol;Acc:HGNC:4774]

HIST1H4A	histone cluster 1, H4a [Source:HGNC Symbol;Acc:HGNC:4781]
HIST2H3A	histone cluster 2, H3a [Source:HGNC Symbol;Acc:HGNC:20505]
HIST2H3C	histone cluster 2, H3c [Source:HGNC Symbol;Acc:HGNC:20503]
HIST2H3D	histone cluster 2, H3d [Source:HGNC Symbol;Acc:HGNC:25311]
HIST2H3PS2	histone cluster 2, H3, pseudogene 2 [Source:HGNC Symbol;Acc:HGNC:32060]
HIST3H3	histone cluster 3, H3 [Source:HGNC Symbol;Acc:HGNC:4778]
HMGCL	3-hydroxymethyl-3-methylglutaryl-CoA lyase [Source:HGNC Symbol;Acc:HGNC:5005]
HMGCS2	3-hydroxy-3-methylglutaryl-CoA synthase 2 [Source:HGNC Symbol;Acc:HGNC:5008]
HSD17B10	hydroxysteroid 17-beta dehydrogenase 10 [Source:HGNC Symbol;Acc:HGNC:4800]
HSD17B12	hydroxysteroid 17-beta dehydrogenase 12 [Source:HGNC Symbol;Acc:HGNC:18646]
HSDL2	hydroxysteroid dehydrogenase like 2 [Source:HGNC Symbol;Acc:HGNC:18572]
HSPA9	heat shock protein family A (Hsp70) member 9 [Source:HGNC Symbol;Acc:HGNC:5244]
HSPD1	heat shock protein family D (Hsp60) member 1 [Source:HGNC Symbol;Acc:HGNC:5261]
HSPE1	heat shock protein family E (Hsp10) member 1 [Source:HGNC Symbol;Acc:HGNC:5269]
	HECT, UBA and WWE domain containing 1, E3 ubiquitin protein ligase [Source:HGNC
HUWE1	Symbol;Acc:HGNC:30892]
IARS2	isoleucyl-tRNA synthetase 2, mitochondrial [Source:HGNC Symbol;Acc:HGNC:29685]
IDH1	isocitrate dehydrogenase (NADP(+)) 1, cytosolic [Source:HGNC Symbol;Acc:HGNC:5382]
IDH2	isocitrate dehydrogenase (NADP(+)) 2, mitochondrial [Source:HGNC Symbol;Acc:HGNC:5383]
IDH3A	isocitrate dehydrogenase 3 (NAD(+)) alpha [Source:HGNC Symbol;Acc:HGNC:5384]
IDH3G	isocitrate dehydrogenase 3 (NAD(+)) gamma [Source:HGNC Symbol;Acc:HGNC:5386]
IVD	isovaleryl-CoA dehydrogenase [Source:HGNC Symbol;Acc:HGNC:6186]
KDM3B	lysine demethylase 3B [Source:HGNC Symbol;Acc:HGNC:1337]
KEAP1	kelch like ECH associated protein 1 [Source:HGNC Symbol;Acc:HGNC:23177]
KMT2C	lysine methyltransferase 2C [Source:HGNC Symbol;Acc:HGNC:13726]
KNTC1	kinetochore associated 1 [Source:HGNC Symbol;Acc:HGNC:17255]
LACTB2	lactamase beta 2 [Source:HGNC Symbol;Acc:HGNC:18512]
LARS2	leucyl-tRNA synthetase 2, mitochondrial [Source:HGNC Symbol;Acc:HGNC:17095]
LDHD	lactate dehydrogenase D [Source:HGNC Symbol;Acc:HGNC:19708]

LETM1	leucine zipper and EF-hand containing transmembrane protein 1 [Source:HGNC Symbol;Acc:HGNC:6556]
LMNA	lamin A/C [Source:HGNC Symbol;Acc:HGNC:6636]
LMNB1	lamin B1 [Source:HGNC Symbol;Acc:HGNC:6637]
LONP1	lon peptidase 1, mitochondrial [Source:HGNC Symbol;Acc:HGNC:9479]
LRPPRC	leucine rich pentatricopeptide repeat containing [Source:HGNC Symbol;Acc:HGNC:15714]
LYRM5	LYR motif containing 5 [Source:HGNC Symbol;Acc:HGNC:27052]
MACROD1	MACRO domain containing 1 [Source:HGNC Symbol;Acc:HGNC:29598]
MAT1A	methionine adenosyltransferase 1A [Source:HGNC Symbol;Acc:HGNC:6903]
MBIP	MAP3K12 binding inhibitory protein 1 [Source:HGNC Symbol;Acc:HGNC:20427]
MCCC1	methylcrotonoyl-CoA carboxylase 1 [Source:HGNC Symbol;Acc:HGNC:6936]
MCCC2	methylcrotonoyl-CoA carboxylase 2 [Source:HGNC Symbol;Acc:HGNC:6937]
MCEE	methylmalonyl-CoA epimerase [Source:HGNC Symbol;Acc:HGNC:16732]
MCUR1	
(CCDC90A)	mitochondrial calcium uniporter regulator 1 [Source:HGNC Symbol;Acc:HGNC:21097]
MDH2	malate dehydrogenase 2 [Source:HGNC Symbol;Acc:HGNC:6971]
ME1	malic enzyme 1 [Source:HGNC Symbol;Acc:HGNC:6983]
ME2	malic enzyme 2 [Source:HGNC Symbol;Acc:HGNC:6984]
ME3	malic enzyme 3 [Source:HGNC Symbol;Acc:HGNC:6985]
MECR	mitochondrial trans-2-enoyl-CoA reductase [Source:HGNC Symbol;Acc:HGNC:19691]
MED12	mediator complex subunit 12 [Source:HGNC Symbol;Acc:HGNC:11957]
MED6	mediator complex subunit 6 [Source:HGNC Symbol;Acc:HGNC:19970]
MINA	MYC induced nuclear antigen [Source:HGNC Symbol;Acc:HGNC:19441]
MLYCD	malonyl-CoA decarboxylase [Source:HGNC Symbol;Acc:HGNC:7150]
MMAB	methylmalonic aciduria (cobalamin deficiency) cblB type [Source:HGNC Symbol;Acc:HGNC:19331]
MPC2	
(BRP44)	mitochondrial pyruvate carrier 2 [Source:HGNC Symbol;Acc:HGNC:24515]
MPST	mercaptopyruvate sulfurtransferase [Source:HGNC Symbol;Acc:HGNC:7223]
MRPL10	mitochondrial ribosomal protein L10 [Source:HGNC Symbol;Acc:HGNC:14055]
MRPL11	mitochondrial ribosomal protein L11 [Source:HGNC Symbol;Acc:HGNC:14042]

MRPL12	mitochondrial ribosomal protein L12 [Source:HGNC Symbol;Acc:HGNC:10378]
MRPL45	mitochondrial ribosomal protein L45 [Source:HGNC Symbol;Acc:HGNC:16651]
MRPL46	mitochondrial ribosomal protein L46 [Source:HGNC Symbol;Acc:HGNC:1192]
MRPS22	mitochondrial ribosomal protein S22 [Source:HGNC Symbol;Acc:HGNC:14508]
MRPS26	mitochondrial ribosomal protein S26 [Source:HGNC Symbol;Acc:HGNC:14045]
MRPS30	mitochondrial ribosomal protein S30 [Source:HGNC Symbol;Acc:HGNC:8769]
MRPS9	mitochondrial ribosomal protein S9 [Source:HGNC Symbol;Acc:HGNC:14501]
MSRA	methionine sulfoxide reductase A [Source:HGNC Symbol;Acc:HGNC:7377]
MSRB2	methionine sulfoxide reductase B2 [Source:HGNC Symbol;Acc:HGNC:17061]
MT-ATP8	
(MTATP8)	mitochondrially encoded ATP synthase 8 [Source:HGNC Symbol;Acc:HGNC:7415]
MTHFD1L	methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1-like [Source:HGNC Symbol;Acc:HGNC:21055]
MTPAP	mitochondrial poly(A) polymerase [Source:HGNC Symbol;Acc:HGNC:25532]
MUT	methylmalonyl-CoA mutase [Source:HGNC Symbol;Acc:HGNC:7526]
МҮН9	myosin, heavy chain 9, non-muscle [Source:HGNC Symbol;Acc:HGNC:7579]
MYOF	myoferlin [Source:HGNC Symbol;Acc:HGNC:3656]
NADK2	NAD kinase 2, mitochondrial [Source:HGNC Symbol;Acc:HGNC:26404]
NASP	nuclear autoantigenic sperm protein [Source:HGNC Symbol;Acc:HGNC:7644]
NDUFA10	NADH:ubiquinone oxidoreductase subunit A10 [Source:HGNC Symbol;Acc:HGNC:7684]
NDUFA12	NADH:ubiquinone oxidoreductase subunit A12 [Source:HGNC Symbol;Acc:HGNC:23987]
NDUFA13	NADH:ubiquinone oxidoreductase subunit A13 [Source:HGNC Symbol;Acc:HGNC:17194]
NDUFA2	NADH:ubiquinone oxidoreductase subunit A2 [Source:HGNC Symbol;Acc:HGNC:7685]
NDUFA5	NADH:ubiquinone oxidoreductase subunit A5 [Source:HGNC Symbol;Acc:HGNC:7688]
NDUFA7	NADH:ubiquinone oxidoreductase subunit A7 [Source:HGNC Symbol;Acc:HGNC:7691]
<i>NDUFA9</i>	NADH:ubiquinone oxidoreductase subunit A9 [Source:HGNC Symbol;Acc:HGNC:7693]
NDUFAB1	NADH:ubiquinone oxidoreductase subunit AB1 [Source:HGNC Symbol;Acc:HGNC:7694]
NDUFAF2	NADH:ubiquinone oxidoreductase complex assembly factor 2 [Source:HGNC Symbol;Acc:HGNC:28086]
<i>NDUFAF4</i>	NADH:ubiquinone oxidoreductase complex assembly factor 4 [Source:HGNC Symbol;Acc:HGNC:21034]
NDUFB11	NADH:ubiquinone oxidoreductase subunit B11 [Source:HGNC Symbol;Acc:HGNC:20372]

NDUED2	NADIJudi suin ana avidana duatana subunit D2 [Causas IICNC Causas IICNC 7600]
NDUFB3	NADH:ubiquinone oxidoreductase subunit B3 [Source:HGNC Symbol;Acc:HGNC:7698]
NDUFS1	NADH:ubiquinone oxidoreductase core subunit S1 [Source:HGNC Symbol;Acc:HGNC:7707]
NDUFS2	NADH:ubiquinone oxidoreductase core subunit S2 [Source:HGNC Symbol;Acc:HGNC:7708]
NDUFS3	NADH:ubiquinone oxidoreductase core subunit S3 [Source:HGNC Symbol;Acc:HGNC:7710]
NDUFS6	NADH:ubiquinone oxidoreductase subunit S6 [Source:HGNC Symbol;Acc:HGNC:7713]
NDUFS7	NADH:ubiquinone oxidoreductase core subunit S7 [Source:HGNC Symbol;Acc:HGNC:7714]
NDUFS8	NADH:ubiquinone oxidoreductase core subunit S8 [Source:HGNC Symbol;Acc:HGNC:7715]
NDUFV1	NADH:ubiquinone oxidoreductase core subunit V1 [Source:HGNC Symbol;Acc:HGNC:7716]
NDUFV2	NADH:ubiquinone oxidoreductase core subunit V2 [Source:HGNC Symbol;Acc:HGNC:7717]
NDUFV3	NADH:ubiquinone oxidoreductase subunit V3 [Source:HGNC Symbol;Acc:HGNC:7719]
NFRKB	nuclear factor related to kappaB binding protein [Source:HGNC Symbol;Acc:HGNC:7802]
NIPSNAP1	nipsnap homolog 1 (C. elegans) [Source:HGNC Symbol;Acc:HGNC:7827]
NIPSNAP3A	nipsnap homolog 3A [Source:HGNC Symbol;Acc:HGNC:23619]
NNT	nicotinamide nucleotide transhydrogenase [Source:HGNC Symbol;Acc:HGNC:7863]
NONO	non-POU domain containing, octamer-binding [Source:HGNC Symbol;Acc:HGNC:7871]
NOP2	NOP2 nucleolar protein [Source:HGNC Symbol;Acc:HGNC:7867]
NUBPL	nucleotide binding protein like [Source:HGNC Symbol;Acc:HGNC:20278]
NUCKS1	nuclear casein kinase and cyclin dependent kinase substrate 1 [Source:HGNC Symbol;Acc:HGNC:29923]
NUDT10	nudix hydrolase 10 [Source:HGNC Symbol;Acc:HGNC:17621]
NUDT9	nudix hydrolase 9 [Source:HGNC Symbol;Acc:HGNC:8056]
OAT	ornithine aminotransferase [Source:HGNC Symbol;Acc:HGNC:8091]
OGDH	oxoglutarate dehydrogenase [Source:HGNC Symbol;Acc:HGNC:8124]
OGG1	8-oxoguanine DNA glycosylase [Source:HGNC Symbol;Acc:HGNC:8125]
OPA1	OPA1, mitochondrial dynamin like GTPase [Source:HGNC Symbol;Acc:HGNC:8140]
OPRM1	opioid receptor mu 1 [Source:HGNC Symbol;Acc:HGNC:8156]
OSGEPL1	O-sialoglycoprotein endopeptidase-like 1 [Source:HGNC Symbol;Acc:HGNC:23075]
OTC	ornithine carbamoyltransferase [Source:HGNC Symbol;Acc:HGNC:8512]
OXSM	3-oxoacyl-ACP synthase, mitochondrial [Source:HGNC Symbol;Acc:HGNC:26063]

PAF1	PAF1 homolog, Paf1/RNA polymerase II complex component [Source:HGNC Symbol;Acc:HGNC:25459]
PAM16	presequence translocase-associated motor 16 homolog (S. cerevisiae) [Source:HGNC Symbol;Acc:HGNC:29679]
PARK7	Parkinsonism associated deglycase [Source:HGNC Symbol;Acc:HGNC:16369]
PC	pyruvate carboxylase [Source:HGNC Symbol;Acc:HGNC:8636]
PCBD2	pterin-4 alpha-carbinolamine dehydratase 2 [Source:HGNC Symbol;Acc:HGNC:24474]
PCCA	propionyl-CoA carboxylase alpha subunit [Source:HGNC Symbol;Acc:HGNC:8653]
PCCB	propionyl-CoA carboxylase beta subunit [Source:HGNC Symbol;Acc:HGNC:8654]
PCF11	PCF11 cleavage and polyadenylation factor subunit [Source:HGNC Symbol;Acc:HGNC:30097]
PCYT2 (ET)	phosphate cytidylyltransferase 2, ethanolamine [Source:HGNC Symbol;Acc:HGNC:8756]
PDHA1	pyruvate dehydrogenase (lipoamide) alpha 1 [Source:HGNC Symbol;Acc:HGNC:8806]
PDHB	pyruvate dehydrogenase (lipoamide) beta [Source:HGNC Symbol;Acc:HGNC:8808]
PDHX	pyruvate dehydrogenase complex component X [Source:HGNC Symbol;Acc:HGNC:21350]
PDP1	pyruvate dehyrogenase phosphatase catalytic subunit 1 [Source:HGNC Symbol;Acc:HGNC:9279]
PDX1	pancreatic and duodenal homeobox 1 [Source:HGNC Symbol;Acc:HGNC:6107]
PEX2	peroxisomal biogenesis factor 2 [Source:HGNC Symbol;Acc:HGNC:9717]
PITRM1	pitrilysin metallopeptidase 1 [Source:HGNC Symbol;Acc:HGNC:17663]
<i>PMPCA</i>	peptidase, mitochondrial processing alpha subunit [Source:HGNC Symbol;Acc:HGNC:18667]
РМРСВ	peptidase, mitochondrial processing beta subunit [Source:HGNC Symbol;Acc:HGNC:9119]
PNISR	PNN interacting serine and arginine rich protein [Source:HGNC Symbol;Acc:HGNC:21222]
PNPT1	polyribonucleotide nucleotidyltransferase 1 [Source:HGNC Symbol;Acc:HGNC:23166]
PPA2	pyrophosphatase (inorganic) 2 [Source:HGNC Symbol;Acc:HGNC:28883]
PPARGC1A	PPARG coactivator 1 alpha [Source:HGNC Symbol;Acc:HGNC:9237]
PPID	peptidylprolyl isomerase D [Source:HGNC Symbol;Acc:HGNC:9257]
PPIF	peptidylprolyl isomerase F [Source:HGNC Symbol;Acc:HGNC:9259]
PPIL2	peptidylprolyl isomerase like 2 [Source:HGNC Symbol;Acc:HGNC:9261]
PRDX3	peroxiredoxin 3 [Source:HGNC Symbol;Acc:HGNC:9354]
PRDX5	peroxiredoxin 5 [Source:HGNC Symbol;Acc:HGNC:9355]
PRKDC	protein kinase, DNA-activated, catalytic polypeptide [Source:HGNC Symbol;Acc:HGNC:9413]

PRODH	proline dehydrogenase 1 [Source:HGNC Symbol;Acc:HGNC:9453]
PRODH2	proline dehydrogenase 2 [Source:HGNC Symbol;Acc:HGNC:17325]
PTPMT1	protein tyrosine phosphatase, mitochondrial 1 [Source:HGNC Symbol;Acc:HGNC:26965]
PYCR2	pyrroline-5-carboxylate reductase family member 2 [Source:HGNC Symbol;Acc:HGNC:30262]
PYGL	phosphorylase, glycogen, liver [Source:HGNC Symbol;Acc:HGNC:9725]
QSER1	glutamine and serine rich 1 [Source:HGNC Symbol;Acc:HGNC:26154]
RAD17	RAD17 checkpoint clamp loader component [Source:HGNC Symbol;Acc:HGNC:9807]
RANGAP1	Ran GTPase activating protein 1 [Source:HGNC Symbol;Acc:HGNC:9854]
RARS2	arginyl-tRNA synthetase 2, mitochondrial [Source:HGNC Symbol;Acc:HGNC:21406]
RELA	RELA proto-oncogene, NF-kB subunit [Source:HGNC Symbol;Acc:HGNC:9955]
RMND1	required for meiotic nuclear division 1 homolog [Source:HGNC Symbol;Acc:HGNC:21176]
RNF216	ring finger protein 216 [Source:HGNC Symbol;Acc:HGNC:21698]
RPL12	ribosomal protein L12 [Source:HGNC Symbol;Acc:HGNC:10302]
RPL38	ribosomal protein L38 [Source:HGNC Symbol;Acc:HGNC:10349]
RPL5	ribosomal protein L5 [Source:HGNC Symbol;Acc:HGNC:10360]
RPS11	ribosomal protein S11 [Source:HGNC Symbol;Acc:HGNC:10384]
RPS3	ribosomal protein S3 [Source:HGNC Symbol;Acc:HGNC:10420]
RSBN1L	round spermatid basic protein 1 like [Source:HGNC Symbol;Acc:HGNC:24765]
S100A4	S100 calcium binding protein A4 [Source:HGNC Symbol;Acc:HGNC:10494]
SARDH	sarcosine dehydrogenase [Source:HGNC Symbol;Acc:HGNC:10536]
SARS2	seryl-tRNA synthetase 2, mitochondrial [Source:HGNC Symbol;Acc:HGNC:17697]
SDHA	succinate dehydrogenase complex flavoprotein subunit A [Source:HGNC Symbol;Acc:HGNC:10680]
SDHB	succinate dehydrogenase complex iron sulfur subunit B [Source:HGNC Symbol;Acc:HGNC:10681]
SENP1	SUMO1/sentrin specific peptidase 1 [Source:HGNC Symbol;Acc:HGNC:17927]
SH3BGRL	SH3 domain binding glutamate rich protein like [Source:HGNC Symbol;Acc:HGNC:10823]
SHMT2	serine hydroxymethyltransferase 2 [Source:HGNC Symbol;Acc:HGNC:10852]
SKP2	S-phase kinase-associated protein 2, E3 ubiquitin protein ligase [Source:HGNC Symbol;Acc:HGNC:10901]
SLC25A1	solute carrier family 25 member 1 [Source:HGNC Symbol;Acc:HGNC:10979]

CT CO - 110	1 1 2 11 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1
SLC25A12	solute carrier family 25 member 12 [Source:HGNC Symbol;Acc:HGNC:10982]
SLC25A13	solute carrier family 25 member 13 [Source:HGNC Symbol;Acc:HGNC:10983]
SLC25A20	solute carrier family 25 member 20 [Source:HGNC Symbol;Acc:HGNC:1421]
SLC25A3	solute carrier family 25 member 3 [Source:HGNC Symbol;Acc:HGNC:10989]
SLC25A5	solute carrier family 25 member 5 [Source:HGNC Symbol;Acc:HGNC:10991]
SLC27A5	solute carrier family 27 member 5 [Source:HGNC Symbol;Acc:HGNC:10999]
SMC3	structural maintenance of chromosomes 3 [Source:HGNC Symbol;Acc:HGNC:2468]
SNW1	SNW domain containing 1 [Source:HGNC Symbol;Acc:HGNC:16696]
SOD2	superoxide dismutase 2, mitochondrial [Source:HGNC Symbol;Acc:HGNC:11180]
SPG7	SPG7, paraplegin matrix AAA peptidase subunit [Source:HGNC Symbol;Acc:HGNC:11237]
SPRYD4	SPRY domain containing 4 [Source:HGNC Symbol;Acc:HGNC:27468]
SQRDL	sulfide quinone reductase-like (yeast) [Source:HGNC Symbol;Acc:HGNC:20390]
SSBP1	single stranded DNA binding protein 1 [Source:HGNC Symbol;Acc:HGNC:11317]
STK11	serine/threonine kinase 11 [Source:HGNC Symbol;Acc:HGNC:11389]
SUCLA2	succinate-CoA ligase ADP-forming beta subunit [Source:HGNC Symbol;Acc:HGNC:11448]
SUCLG1	succinate-CoA ligase alpha subunit [Source:HGNC Symbol;Acc:HGNC:11449]
SUCLG2	succinate-CoA ligase GDP-forming beta subunit [Source:HGNC Symbol;Acc:HGNC:11450]
TACO1	translational activator of cytochrome c oxidase I [Source:HGNC Symbol;Acc:HGNC:24316]
TARS2	threonyl-tRNA synthetase 2, mitochondrial (putative) [Source:HGNC Symbol;Acc:HGNC:30740]
TEKT5	tektin 5 [Source:HGNC Symbol;Acc:HGNC:26554]
TFAM	transcription factor A, mitochondrial [Source:HGNC Symbol;Acc:HGNC:11741]
THEM4	thioesterase superfamily member 4 [Source:HGNC Symbol;Acc:HGNC:17947]
TIMM44	translocase of inner mitochondrial membrane 44 [Source:HGNC Symbol;Acc:HGNC:17316]
TMLHE	trimethyllysine hydroxylase, epsilon [Source:HGNC Symbol;Acc:HGNC:18308]
TP53	tumor protein p53 [Source:HGNC Symbol;Acc:HGNC:11998]
TPR	translocated promoter region, nuclear basket protein [Source:HGNC Symbol;Acc:HGNC:12017]
TRAP1	TNF receptor associated protein 1 [Source:HGNC Symbol;Acc:HGNC:16264]
TRIM59	tripartite motif containing 59 [Source:HGNC Symbol;Acc:HGNC:30834]

thyroid hormone receptor interactor 10 [Source:HGNC Symbol;Acc:HGNC:12304]
Ts translation elongation factor, mitochondrial [Source:HGNC Symbol;Acc:HGNC:12367]
thiosulfate sulfurtransferase [Source:HGNC Symbol;Acc:HGNC:12388]
Tu translation elongation factor, mitochondrial [Source:HGNC Symbol;Acc:HGNC:12420]
thioredoxin 2 [Source:HGNC Symbol;Acc:HGNC:17772]
UDP-glucose pyrophosphorylase 2 [Source:HGNC Symbol;Acc:HGNC:12527]
ubiquinol-cytochrome c reductase core protein II [Source:HGNC Symbol;Acc:HGNC:12586]
ubiquinol-cytochrome c reductase, Rieske iron-sulfur polypeptide 1 [Source:HGNC Symbol;Acc:HGNC:12587]
ubiquinol-cytochrome c reductase complex III subunit VII [Source:HGNC Symbol;Acc:HGNC:29594]
up-regulated during skeletal muscle growth 5 homolog (mouse) [Source:HGNC Symbol;Acc:HGNC:30889]
ubiquitin specific peptidase 34 [Source:HGNC Symbol;Acc:HGNC:20066]
von Willebrand factor A domain containing 8 [Source:HGNC Symbol;Acc:HGNC:29071]
WD repeat domain 33 [Source:HGNC Symbol;Acc:HGNC:25651]
X-prolyl aminopeptidase 3, mitochondrial [Source:HGNC Symbol;Acc:HGNC:28052]
exportin 1 [Source:HGNC Symbol;Acc:HGNC:12825]
X-ray repair cross complementing 6 [Source:HGNC Symbol;Acc:HGNC:4055]
tyrosyl-tRNA synthetase 2 [Source:HGNC Symbol;Acc:HGNC:24249]
zinc binding alcohol dehydrogenase domain containing 2 [Source:HGNC Symbol;Acc:HGNC:28697]
zinc finger AN1-type containing 5 [Source:HGNC Symbol;Acc:HGNC:13008]
zinc finger protein 16 [Source:HGNC Symbol;Acc:HGNC:12947]
zinc finger SWIM-type containing 7 [Source:HGNC Symbol;Acc:HGNC:26993]