DLAT Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	DLAT, Polyclonal Antibody
Full Product Name	DLAT (Dihydrolipoyllysine-residue Acetyltransferase Component of Pyruvate Dehydrogenase Complex, Mitochondrial, 70kD Mitochondrial Autoantigen
Product Gene Name	anti-DLAT antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human DLAT.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo
Molecular Weight	68,997 Da
OMIM	245348
3D Structure	ModBase 3D Structure for P10515
Immunogen	Full length human DLAT, aa1-647 (NP_001922.2).
Immunogen Sequence	MWRVCARRAQNVAPWAGLEARWTALQEVPGTPRVTSRSGPAPARRNSVTTGYGGVRALCGWTPSSGATPRNRLLLQLLGSPGRRYYSLPPHQKVPLI
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-DLAT antibody	Antibodies; Enzymes; Dehydrogenase
Applications Tested/Suitable for anti-DLAT antibody	Western Blot (WB)
Application Notes for anti-DLAT antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-DLAT antibody	MaxLight405 is a new Violet photostable dye conjugate comparable to Alexa Fluor 405, PacificBlue, Brilliant Violet 421 and offers better labeling efficie

Other Notes	Small volumes of anti-DLAT antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessa
Searchable Terms for DLAT purchase	MBS6376265 is an antibody targeting DLAT. Also known as DLAT (Dihydrolipoyllysine-residue Acetyltransferase Component of Pyruvate Dehydrogena

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DLAT. It may not necessarily be applicable to this product.

NCBI GI #	31711992
NCBI GeneID	1737
NCBI Accession #	NP_001922.2
UniProt Primary Accession #	P10515
UniProt Secondary Accession #	Q16783; Q53EP3
UniProt Related Accession #	P10515
GenBank Nucleotide #	NM_001931.2
NCBI Official Full Name	dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex, mitochondrial
NCBI Official Synonym Full Names	dihydrolipoamide S-acetyltransferase
NCBI Official Symbol	DLAT
NCBI Official Synonym Symbols	DLTA; PDCE2; PDC-E2
UniProt Protein Name	Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex, mitochondrial
UniProt Synonym Protein Names	70 kDa mitochondrial autoantigen of primary biliary cirrhosis; PBC; Dihydrolipoamide acetyltransferase component of pyruvate dehydrogenase complex; M2 antigen complex 70 kDa subunit; Pyruvate dehydrogenase complex component E2; PDC-E2; PDCE2
Protein Family	Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex
UniProt Gene Name	DLAT
UniProt Synonym Gene Names	DLTA; PBC; PDC-E2; PDCE2
UniProt Entry Name	ODP2_HUMAN
NCBI Protein Information	dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex, mitochondrial; 70 kDa mitochondrial autoantigen of primary biliary cirrhosis; E2 component of pyruvate dehydrogenase complex; M2 antigen complex 70 kDa subunit; PBC
NCBI Summary for DLAT	This gene encodes component E2 of the multi-enzyme pyruvate dehydrogenase complex (PDC). PDC resides in the inner mitochondrial membrane and catalyzes the conversion of pyruvate to acetyl coenzyme A. The protein product of this gene, dihydrolipoamide acetyltransferase, accepts acetyl groups formed by the oxidative decarboxylation of pyruvate and transfers them to coenzyme A. Dihydrolipoamide acetyltransferase is the antigen for antimitochondrial antibodies. These autoantibodies are present in nearly 95% of patients with the autoimmune liver disease primary biliary cirrhosis (PBC). In PBC, activated T lymphocytes attack and destroy epithelial cells in the bile duct where this protein is abnormally distributed and overexpressed. PBC enventually leads to cirrhosis and liver failure. Mutations in this gene are also a cause of pyruvate dehydrogenase E2 deficiency which causes primary lactic acidosis in infancy and early childhood.[provided by RefSeq, Oct 2009]

UniProt Comments for DLAT	DLAT: the E2 component of the pyruvate dehydrogenase complex (PDHC) that catalyzes the overall conversion of pyruvate to acetyl-CoA and CO2. Contains two lipoyl-binding domains. The PDHC plays a major role in controlling the balance between lipid and glucose oxidation depending on substrate availability. The activity of the PDHC is tightly regulated by phosphorylation of the E1 components by the PDHKs. The pyruvate dehydrogenase (PDH) holoenzyme is a multi-enzyme complex (PDHC) that contains 20-30 copies of pyruvate decarboxylase tetramers (2 alpha:2 beta)(E1), 60 copies of dihydrolipoamide acetyltransferase (E2), six homo-dimers of dihydrolipoamide dehydrogenase (E3), plus E3 binding proteins. PDHKs are recruited to the PDHC by binding to a lipoyl group covalently attached to K174 of the inner lipoyl domain of the E2 component. Protein type: Carbohydrate Metabolism - pyruvate; Carbohydrate Metabolism - glycolysis and gluconeogenesis; EC 2.3.1.12; Transferase; Carbohydrate Metabolism - citrate (TCA) cycle; Mitochondrial Chromosomal Location of Human Ortholog: 11q23.1 Cellular Component: mitochondrion; mitochondrial matrix; mitochondrial pyruvate dehydrogenase complex Molecular Function: dihydrolipoyllysine-residue acetyltransferase activity; protein binding Biological Process: cellular metabolic process; tricarboxylic acid cycle; glucose metabolic process; regulation of acetyl-CoA biosynthetic process from pyruvate; pyruvate metabolic process Disease: Pyruvate Dehydrogenase E2 Deficiency
Research Articles on DLAT	**1.** ongoing activation of PDCE2-specific B-cells in primary biliary cirrhosis
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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