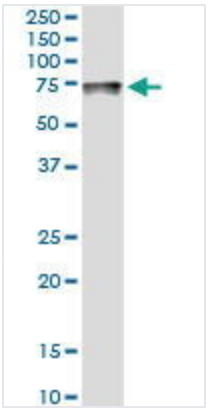
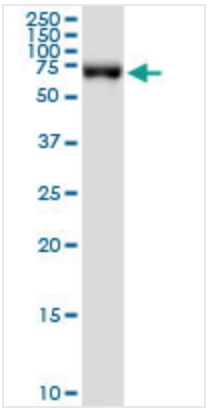
# DLAT Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

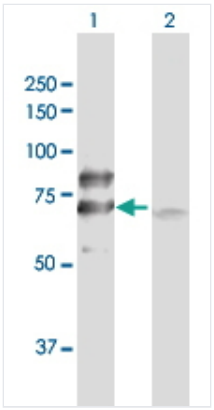
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| **Product Name** | DLAT, Polyclonal Antibody |
| **Full Product Name** | DLAT (Dihydrolipoyllysine-residue Acetyltransferase Component of Pyruvate Dehydrogenase Complex, Mitochondrial, 70kD Mitochondrial Autoantigen |
| **Product Gene Name** | anti-DLAT 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 Horseradish Peroxidase (HRP). |
| **Purity/Purification** | Purified by Protein A Affinity Chromatography. |
| **Specificity** | Recognizes human DLAT. |
| **Preparation and Storage** | Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and stor |
| **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** | MWRVCARRAQNVAPWAGLEARWTALQEVPGTPRVTSRSGPAPARRNSVTTGYGGVRALCGWTPSSGATPRNRLLLQLLGSPGRRYYSLPPHQKVPL |
| **Conjugate** | HRP |
| **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** | MBS6376264 is an antibody targeting DLAT. Also known as DLAT (Dihydrolipoyllysine-residue Acetyltransferase Component of Pyruvate Dehydrogena |
| **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 |




**Western Blot (WB) of anti-DLAT antibody**
DLAT rabbit polyclonal antibody. Western Blot analysis of DLAT expression in human pancreas.




**Western Blot (WB) of anti-DLAT antibody**
DLAT rabbit polyclonal antibody. Western Blot analysis of DLAT expression in A-431.




**Western Blot (WB) of anti-DLAT antibody**
Western Blot analysis of DLAT expression in transfected 293T cell line by DLAT polyclonal antibody. Lane 1: DLAT transfected lysate (69kD). Lane 2: Non-transfected lysate.

## ADDITIONAL DETAILS

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

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| **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 |

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| **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.<br><br>Protein type: Carbohydrate Metabolism - pyruvate; Carbohydrate Metabolism - glycolysis and gluconeogenesis; EC 2.3.1.12; Transferase; Carbohydrate Metabolism - citrate (TCA) cycle; Mitochondrial<br><br>Chromosomal Location of Human Ortholog: 11q23.1<br><br>Cellular Component: mitochondrion; mitochondrial matrix; mitochondrial pyruvate dehydrogenase complex<br><br>Molecular Function: dihydrolipoyllysine-residue acetyltransferase activity; protein binding<br><br>Biological Process: cellular metabolic process; tricarboxylic acid cycle; glucose metabolic process; regulation of acetyl-CoA biosynthetic process from pyruvate; pyruvate metabolic process<br><br>Disease: Pyruvate Dehydrogenase E2 Deficiency |
| **Research Articles on DLAT** | **1.** ongoing activation of PDCE2-specific B-cells in primary biliary cirrhosis |
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