10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DLAT Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5341B

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P10515
Other Accession	NP_001922.2
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB26843
Calculated MW	68997
Antigen Region	579-607

Additional Information

Gene ID	1737
Other Names	Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex, mitochondrial, 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, DLAT, DLTA
Target/Specificity	This DLAT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 579-607 amino acids from the C-terminal region of human DLAT.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DLAT Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DLAT (HGNC:2896)
Synonyms	DLTA
Function	The pyruvate dehydrogenase (PDH) complex, catalyzes the overall conversion of pyruvate to acetyl-CoA and CO(2), and thereby links cytoplasmic glycolysis and the mitochondrial tricarboxylic acid (TCA) cycle (Probable). It contains multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and dihydrolipoamide dehydrogenase (E3); (Probable). Within this complex, the catalytic function of this enzyme is to accept, and to transfer to coenzyme A, acetyl groups from acetyl- lipoyl moiety generated by the pyruvate dehydrogenase, leading to acetyl-CoA formation (Probable).
Cellular Location	Mitochondrion matrix {ECO:0000250|UniProtKB:P08461}

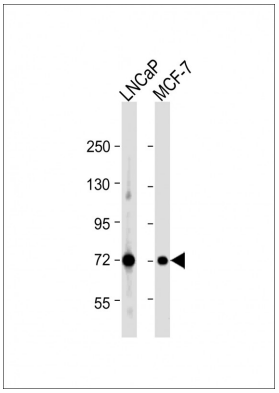
Background

DLAT 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.

References

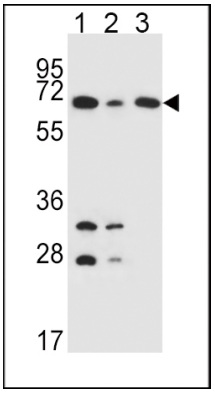
Trynka, G., et al. Gut 58(8):1078-1083(2009)
Lleo, A., et al. Hepatology 49(3):871-879(2009)
Korotchkina, L.G., et al. FEBS Lett. 582(3):468-472(2008)

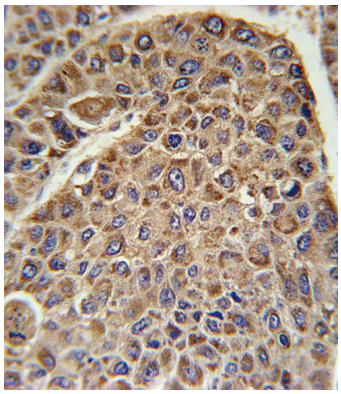
Images



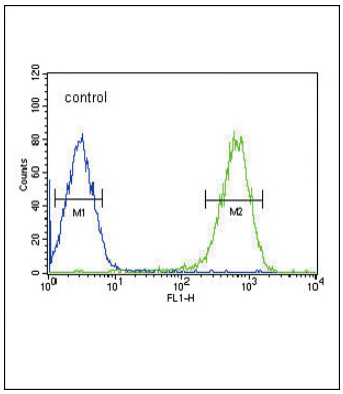
All lanes : Anti-DLAT Antibody (C-term) at 1:1000 dilution Lane 1: LNCaP whole cell lysate Lane 2: MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 69 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

DLAT Antibody (C-term) (Cat. #AP5341b) western blot analysis in K562(lane 1),HepG2(lane 2),Jurkat(lane 3) cell line lysates (35ug/lane).This demonstrates the DLAT antibody detected the DLAT protein (arrow).





DLAT Antibody (C-term) (Cat. #AP5341b) immunohistochemistry analysis in formalin fixed and paraffin embedded human hepatocarcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DLAT Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



DLAT Antibody (C-term) (Cat. #AP5341b) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.