

Anti-DLD Antibody
Catalog # ABO10782**Specification**

Anti-DLD Antibody - Product Information

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	P09622
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Dihydrolipoyl dehydrogenase, mitochondrial(DLD) detection. Tested with WB, IHC-P; IHC-F; ICC in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-DLD Antibody - Additional Information

Gene ID 1738

Other Names

Dihydrolipoyl dehydrogenase, mitochondrial, 1.8.1.4, Dihydrolipoamide dehydrogenase, Glycine cleavage system L protein, DLD, GCSL, LAD, PHE3

Calculated MW

54177 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat
Immunocytochemistry , 0.5-1 µg/ml, Human, -
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Rat, Mouse
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Mitochondrion matrix.

Protein Name

Dihydrolipoyl dehydrogenase, mitochondrial

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human DLD(492-509aa EAFREANLAASFGKSINF), different from the related mouse and rat sequences by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the class-I pyridine nucleotide-disulfide oxidoreductase family.

Anti-DLD Antibody - Protein Information

Name DLD

Synonyms GCSL, LAD, PHE3

Function

Lipoamide dehydrogenase is a component of the glycine cleavage system as well as an E3 component of three alpha-ketoacid dehydrogenase complexes (pyruvate-, alpha-ketoglutarate-, and branched- chain amino acid-dehydrogenase complex) (PubMed: 15712224, PubMed: 16442803, PubMed: 16770810, PubMed: 17404228, PubMed: 20160912, PubMed: 20385101). The 2-oxoglutarate dehydrogenase complex is mainly active in the mitochondrion (PubMed: 29211711). A fraction of the 2-oxoglutarate dehydrogenase complex also localizes in the nucleus and is required for lysine succinylation of histones: associates with KAT2A on chromatin and provides succinyl-CoA to histone succinyltransferase KAT2A (PubMed: 29211711). In monomeric form may have additional moonlighting function as serine protease (PubMed: 17404228). Involved in the hyperactivation of spermatazoa during capacitation and in the spermatazoal acrosome reaction (By similarity).

Cellular Location

Mitochondrion matrix. Nucleus. Cell projection, cilium, flagellum {ECO:0000250|UniProtKB:Q811C4}. Cytoplasmic vesicle, secretory vesicle, acrosome. Note=Mainly localizes in the mitochondrion. A small fraction localizes to the nucleus, where the 2-oxoglutarate dehydrogenase complex is required for histone succinylation.

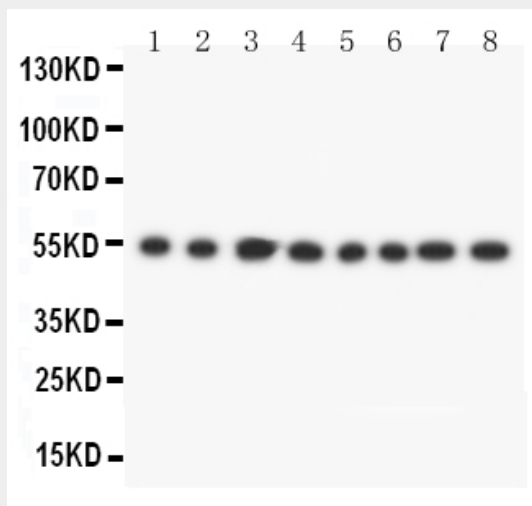
Anti-DLD Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

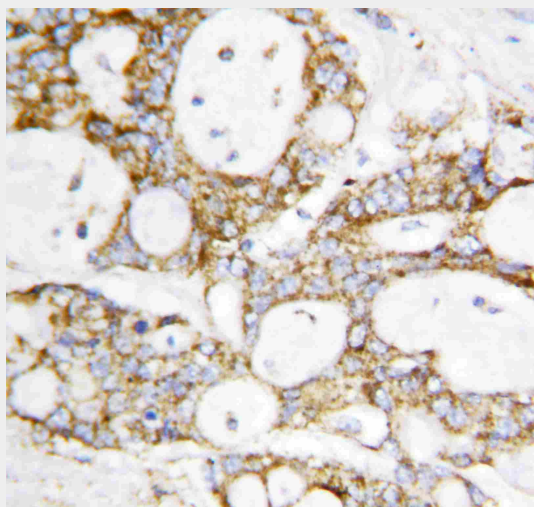
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

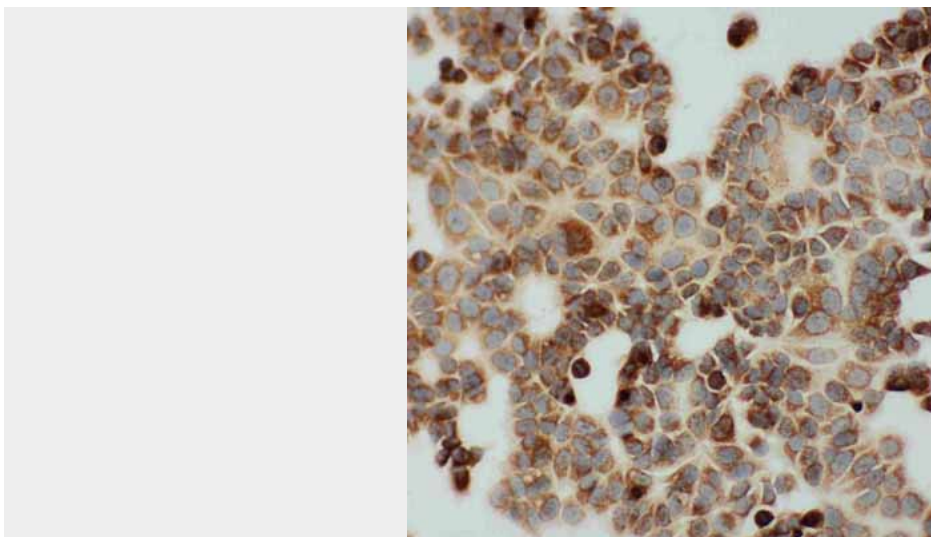
Anti-DLD Antibody - Images



Anti-DLD antibody, ABO10782, Western blotting
 Lane 1: Rat Liver Tissue Lysate
 Lane 2: Rat Brain Tissue Lysate
 Lane 3: Rat Ovary Tissue Lysate
 Lane 4: Rat Testis Tissue Lysate
 Lane 5: SMMC Cell Lysate
 Lane 6: HELA Cell Lysate
 Lane 7: SMMC Cell Lysate
 Lane 8: JURKAT Cell Lysate



Anti-DLD antibody, ABO10782, IHC(P) IHC(P): Human Mammary Cancer Tissue



Anti-Lipoamide Dehydrogenase antibody, ABO10782, ICCICC: MCF-7 Cell

Anti-DLD Antibody - Background

DLD, Dihydrolipoamide dehydrogenase, is a component of the pyruvate dehydrogenase complex, the alpha-ketoglutarate dehydrogenase complex, and the branched-chain alpha-keto acid dehydrogenase complex (BCKD). DLD is a flavoprotein enzyme that degrades lipoamide, and produces dihydrolipoamide. The DLD gene contains 14 exons. The gene is localized to 7q31-q32. This gene encodes the L protein of the mitochondrial glycine cleavage system. The L protein, also named dihydrolipoamide dehydrogenase, is also a component of the pyruvate dehydrogenase complex, the alpha-ketoglutarate dehydrogenase complex, and the branched-chain alpha-keto acid dehydrogenase complex.