

Anti-DLD Picoband Antibody
Catalog # ABO12265**Specification**

Anti-DLD Picoband Antibody - Product Information

Application	WB, IHC
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 in Human;Mouse;Rat.

Reconstitution

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

Anti-DLD Picoband 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, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Mitochondrion matrix.

Protein Name

Dihydrolipoyl dehydrogenase, mitochondrial

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

E.coli-derived human DLD recombinant protein (Position: K300-F509). Human DLD shares 96.2% and 95.7% amino acid (aa) sequence identity with mouse and rat DLD, respectively.

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 Picoband 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.

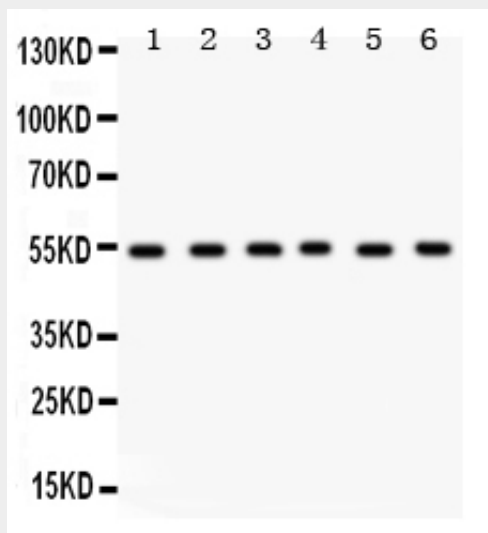
Anti-DLD Picoband Antibody - Protocols

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

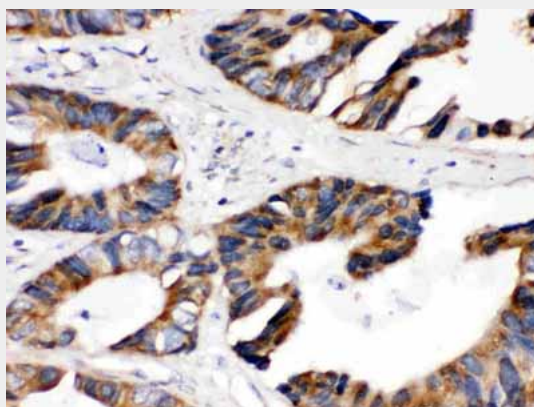
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

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

Anti-DLD Picoband Antibody - Images



Anti- DLD Picoband antibody, ABO12265, Western blotting
All lanes: Anti DLD (ABO12265) at 0.5ug/ml
Lane 1: Rat Brain Tissue Lysate at 50ug
Lane 2: Rat Liver Tissue Lysate at 50ug
Lane 3: Rat Testis Tissue Lysate at 50ug
Lane 4: Mouse Ovary Tissue Lysate at 50ug
Lane 5: HELA Whole Cell Lysate at 40ug
Lane 6: SMMC Whole Cell Lysate at 40ug
Predicted bind size: 54KD
Observed bind size: 54KD



Anti- DLD Picoband antibody, ABO12265, IHC(P)
IHC(P): Human Intestinal Cancer Tissue

Anti-DLD Picoband 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.