

Anti-DLD Picoband Antibody

Catalog # ABO12265

Specification

Anti-DLD Picoband Antibody - Product Information

ApplicationWB, IHC-PPrimary AccessionP09622HostRabbitReactivityHuman, Mouse, RatClonalityPolyclonalFormatLyophilizedDescriptionRabbit 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 NaN3.

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 r°Constitution, 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 succinvlation of histones: associates with KAT2A on chromatin and provides succinvl-CoA to histone succinvltransferase 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 2oxoglutarate 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.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation



Flow Cytomety

<u>Cell Culture</u>

Anti-DLD Picoband Antibody - Images



Anti- DLD Picoband antibody, ABO12265, Western blottingAll lanes: Anti DLD (ABO12265) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Rat Liver Tissue Lysate at 50ugLane 3: Rat Testis Tissue Lysate at 50ugLane 4: Mouse Ovary Tissue Lysate at 50ugLane 5: HELA Whole Cell Lysate at 40ugLane 6: SMMC Whole Cell Lysate at 40ugPredicted bind size: 54KDObserved 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 acide dehydrogenase complex.