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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 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 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

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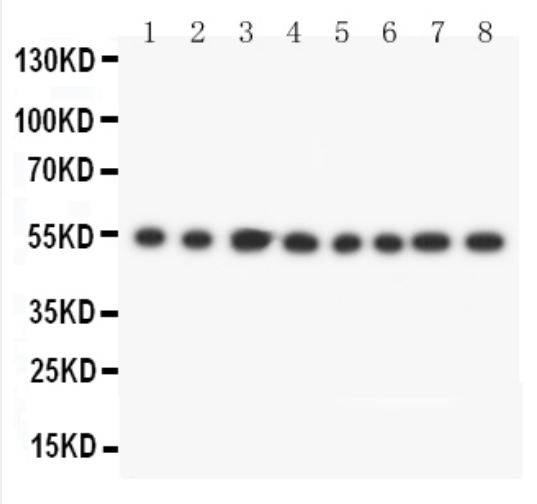
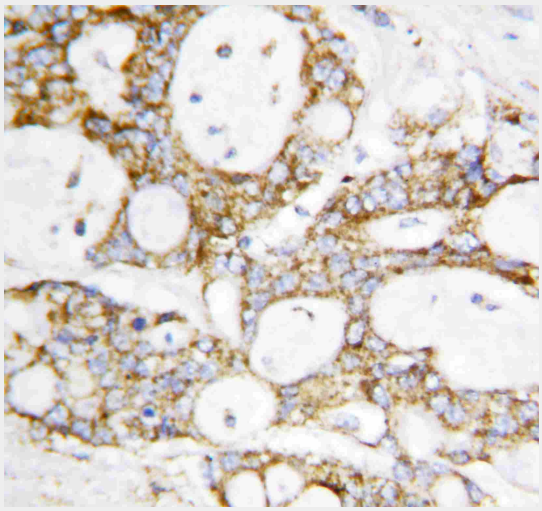
- Flow Cytomety
- Cell Culture

Anti-DLD Antibody - Images



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



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

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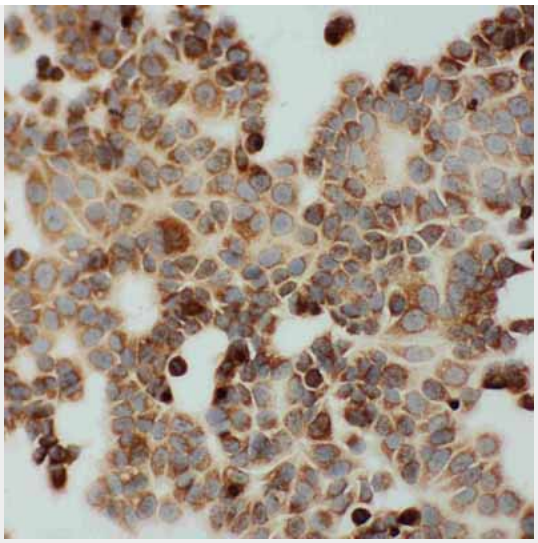

Anti-Lipoamide Dehydrogenase antibody, ABO10782, ICCICC: MCF-7 Cell

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 acide dehydrogenase complex.