

DLD Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP6832c**Specification**

DLD Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [P09622](#)**DLD Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 1738**Other Names**

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6832c](/products/AP6832c) was selected from the Center region of human DLD. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DLD Antibody (Center) Blocking Peptide - 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](http://www.uniprot.org/citations/15712224), PubMed:[16442803](http://www.uniprot.org/citations/16442803), PubMed:[16770810](http://www.uniprot.org/citations/16770810), PubMed:[17404228](http://www.uniprot.org/citations/17404228), PubMed:[20160912](http://www.uniprot.org/citations/20160912), PubMed:[20385101](http://www.uniprot.org/citations/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.

DLD Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

DLD Antibody (Center) Blocking Peptide - Images

DLD Antibody (Center) Blocking Peptide - Background

DLD is 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.

DLD Antibody (Center) Blocking Peptide - References

Wang,Y.C., et.al., J. Biomed. Sci. 14 (2), 203-210 (2007)