

DLD (H-154): sc-135027

BACKGROUND

DLD (dihydrolipoyl dehydrogenase or dihydrolipoamide dehydrogenase), also known as GCSL (glycine cleavage system L protein), PHE3, DLDH or LAD, is a member of the class I pyridine nucleotide-disulfide oxidoreductase family. DLD is a flavin-dependent oxidoreductase and functions as a component of the α -keto acid dehydrogenase, the pyruvate dehydrogenase, the α -ketoglutarate dehydrogenase, the branched-chain α -keto acid dehydrogenase and as the L protein in the mitochondrial glycine cleavage system. DLD localizes to the mitochondrial matrix and exists as a monomer, homodimer or tetramer that is required for energy metabolism in all eukaryotes. More specifically, DLD generates NADH and lipoic acid from dihydrolipoic acid and NAD⁺. The DLD homodimer catalyzes the opposite reaction. Mutations in the gene encoding DLD can result in MSUD (maple syrup urine disease) and congenital infantile lactic acidosis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DLD (human) mapping to 7q31.1; Dld (mouse) mapping to 12 A3.

SOURCE

DLD (H-154) is a rabbit polyclonal antibody raised against amino acids 356-509 mapping at the C-terminus of DLD of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

DLD (H-154) is recommended for detection of DLD of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

DLD (H-154) is also recommended for detection of DLD in additional species, including equine, canine, bovine, porcine and avian.

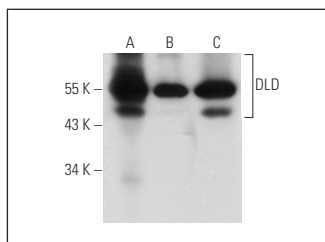
Suitable for use as control antibody for DLD siRNA (h): sc-62218, DLD siRNA (m): sc-62219, DLD shRNA Plasmid (h): sc-62218-SH, DLD shRNA Plasmid (m): sc-62219-SH, DLD shRNA (h) Lentiviral Particles: sc-62218-V and DLD shRNA (m) Lentiviral Particles: sc-62219-V.

Molecular Weight of DLD monomer: 50 kDa.

Molecular Weight of DLD homodimer: 100 kDa.

Positive Controls: OV-90 whole cell lysate: sc-364191, mouse heart extract: sc-2254 or HeLa whole cell lysate: sc-2200.

DATA



DLD (H-154): sc-135027. Western blot analysis of DLD expression in mouse heart tissue extract (A) and HeLa (B) and OV-90 (C) whole cell lysates.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **DLD (G-2): sc-365977** or **DLD (E-3): sc-376890**, our highly recommended monoclonal alternatives to DLD (H-154).