



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

DLD (m): 293T Lysate: sc-119779

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

1. Brown, A.M., et al. 2004. Association of the dihydrolipoamide dehydrogenase gene with Alzheimer's disease in an Ashkenazi Jewish population. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 131: 60-66.
2. Starkov, A.A., et al. 2004. Mitochondrial α -ketoglutarate dehydrogenase complex generates reactive oxygen species. *J. Neurosci.* 24: 7779-7788.
3. Nishimoto, E., et al. 2006. Thermal unfolding process of dihydrolipoamide dehydrogenase studied by fluorescence spectroscopy. *J. Biochem.* 140: 349-357.
4. Cameron, J.M., et al. 2006. Novel mutations in dihydrolipoamide dehydrogenase deficiency in two cousins with borderline-normal PDH complex activity. *Am. J. Med. Genet. A* 140: 1542-1552.
5. Smolle, M., et al. 2006. A new level of architectural complexity in the human pyruvate dehydrogenase complex. *J. Biol. Chem.* 281: 19772-19780.
6. Kim, H. 2006. Activity of human dihydrolipoamide dehydrogenase is largely reduced by mutation at isoleucine-51 to alanine. *J. Biochem. Mol. Biol.* 39: 223-227.

CHROMOSOMAL LOCATION

Genetic locus: Dld (mouse) mapping to 12 A3.

PRODUCT

DLD (m): 293T Lysate represents a lysate of mouse DLD transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

DLD (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive DLD antibodies. Recommended use: 10-20 μ l per lane.

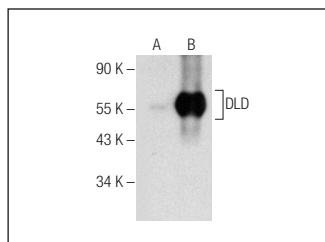
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

DLD (E-3): sc-376890 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse DLD expression in DLD transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

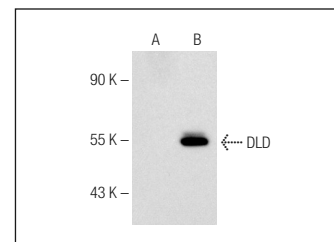
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



DLD (E-3): sc-376890. Western blot analysis of DLD expression in non-transfected: sc-117752 (A) and mouse DLD transfected: sc-119779 (B) 293T whole cell lysates.



DLD (D-8): sc-271569. Western blot analysis of DLD expression in non-transfected: sc-117752 (A) and mouse DLD transfected: sc-119779 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.