

LSDP5 (E-3): sc-514296



The Power to Question

BACKGROUND

LSDP5 (lipid storage droplet protein 5) is a 463 amino acid protein that localizes to the surface of lipid droplets and belongs to the perilipin family. Expressed in heart, skeletal muscle, liver and kidney, LSDP5 exists as multiple alternatively spliced isoforms and functions to bind to protect lipid droplets from lipolytic degradation. The gene encoding LSDP5 maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

CHROMOSOMAL LOCATION

Genetic locus: PLIN5 (human) mapping to 19p13.3; Plin5 (mouse) mapping to 17 D.

SOURCE

LSDP5 (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 409-429 near the C-terminus of LSDP5 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LSDP5 (E-3) is available conjugated to agarose (sc-514296 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514296 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514296 PE), fluorescein (sc-514296 FITC), Alexa Fluor® 488 (sc-514296 AF488), Alexa Fluor® 546 (sc-514296 AF546), Alexa Fluor® 594 (sc-514296 AF594) or Alexa Fluor® 647 (sc-514296 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514296 AF680) or Alexa Fluor® 790 (sc-514296 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514296 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

LSDP5 (E-3) is recommended for detection of LSDP5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for LSDP5 siRNA (h): sc-97411, LSDP5 siRNA (m): sc-149129, LSDP5 shRNA Plasmid (h): sc-97411-SH, LSDP5 shRNA Plasmid (m): sc-149129-SH, LSDP5 shRNA (h) Lentiviral Particles: sc-97411-V and LSDP5 shRNA (m) Lentiviral Particles: sc-149129-V.

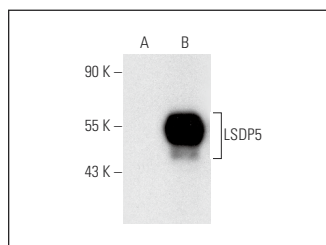
Molecular Weight of LSDP5: 51 kDa.

Positive Controls: LSDP5 (m): 293T Lysate: sc-121424.

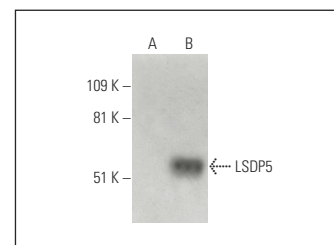
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



LSDP5 (E-3): sc-514296. Western blot analysis of LSDP5 expression in non-transfected: sc-117752 (A) and mouse LSDP5 transfected: sc-121424 (B) 293T whole cell lysates.



LSDP5 (E-3) HRP: sc-514296 HRP. Direct western blot analysis of LSDP5 expression in non-transfected: sc-117752 (A) and mouse LSDP5 transfected: sc-121424 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Jia, H., et al. 2019. Perilipin 5 promotes hepatic steatosis in dairy cows through increasing lipid synthesis and decreasing very low density lipoprotein assembly. *J. Dairy Sci.* 102: 833-845.
- Zhou, Y., et al. 2022. Perilipin 2 protects against lipotoxicity-induced islet fibrosis by inducing islet stellate cell activation phenotype changes. *Biomed Res. Int.* 2022: 4581405.
- Abou-Rjeileh, U., et al. 2023. Oleic acid abomasal infusion limits lipolysis and improves insulin sensitivity in adipose tissue from periparturient dairy cows. *J. Dairy Sci.* 106: 4306-4323.
- Wang, S., et al. 2024. Diacylglycerol O-acyltransferase (DGAT) isoforms play a role in peridroplet mitochondrial fatty acid metabolism in bovine liver. *J. Dairy Sci.* E-published.

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.

PROTOCOLS

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA