SANTA CRUZ BIOTECHNOLOGY, INC.

HSDL1 (C-12): sc-164610

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

HSDL1 (hydroxysteroid dehydrogenase-like protein 1) is a 330 amino acid protein that belongs to the short-chain dehydrogenases/reductases (SDR) family and 17-β-HSD 3 subfamily. Localizing to the mitochondrion, HSDL1 is highly expressed in testis and ovary, with lower levels of expression found in thyroid, spinal cord, adrenal gland, heart, placenta, skeletal muscle, small intestine, colon, spleen, prostate and pancreas. HSDL1 interacts with DUSP24 and is encoded by a gene that maps to human chromosome 16q23.3 and mouse chromosome 8 E1. Chromosome 16 encodes over 900 genes in approximately 90 million base pairs, makes up nearly 3% of human cellular DNA, and is associated with a variety of genetic disorders. The rare disorder Rubinstein-Taybi syndrome is associated with chromosome 16 through the CREBBP gene, which encodes a critical CREB binding protein. Crohn's disease is a gastrointestinal inflammatory condition associated with chromosome 16 through the NOD2 gene.

REFERENCES

1. Baraitser, M., et al. 1983. The Rubinstein-Taybi syndrome: occurrence in two sets of identical twins. Clin. Genet. 23: 318-320.
2. Breuning, M.H., et al. 1993. Rubinstein-Taybi syndrome caused by submicroscopic deletions within 16p13.3. Am. J. Hum. Genet. 52: 249-254.
3. Huang, Y., et al. 2001. A novel human hydroxysteroid dehydrogenase like 1 gene (HSDL1) is highly expressed in reproductive tissues. Mol. Biol. Rep. 28: 185-191.
4. Cho, J.H. 2004. Advances in the genetics of inflammatory bowel disease. Curr. Gastroenterol. Rep. 6: 467-473.
5. Mathew, C.G., et al. 2004. Genetics of inflammatory bowel disease: progress and prospects. Hum. Mol. Genet. 13: R161-R168.
6. Meier, M., et al. 2009. Human and zebrafish hydroxysteroid dehydrogenase like 1 (HSDL1) proteins are inactive enzymes but conserved among species. Chem. Biol. Interact. 178: 197-205.

CHROMOSOMAL LOCATION

Genetic locus: HSDL1 (human) mapping to 16q23.3; Hsdl1 (mouse) mapping to 8 E1.

SOURCE

HSDL1 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HSDL1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-164610 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

HSDL1 (C-12) is recommended for detection of HSDL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with HSDL2.

HSDL1 (C-12) is also recommended for detection of HSDL1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HSDL1 siRNA (h): sc-93539, HSDL1 siRNA (m): sc-146091, HSDL1 shRNA Plasmid (h): sc-93539-SH, HSDL1 shRNA Plasmid (m): sc-146091-SH, HSDL1 shRNA (h) Lentiviral Particles: sc-93539-V and HSDL1 shRNA (m) Lentiviral Particles: sc-146091-V.

Molecular Weight (predicted) of HSDL1 isoforms 1/2: 37/31 kDa.

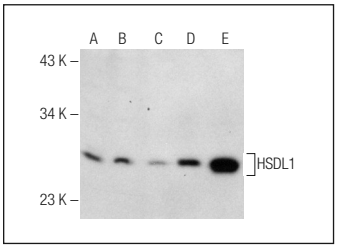
Molecular Weight (observed) of HSDL1: 28 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, DU 145 cell lysate: sc-2268 or Hep G2 cell lysate: sc-2227.

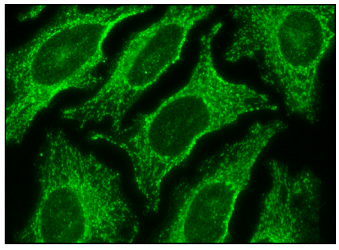
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HSDL1 (C-12): sc-164610. Western blot analysis of HSDL1 expression in HeLa (**A**), DU 145 (**B**) and Hep G2 (**C**) whole cell lysates and human prostate (**D**) and human liver (**E**) tissue extracts.



HSDL1 (C-12): sc-164610. Immunofluorescence staining of methanol-fixed HeLa cells showing mitochondrial localization.

RESEARCH USE

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

PROTOCOLS

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