

# DHRS1 (C-13): sc-104873

## BACKGROUND

DHRS1 (dehydrogenase/reductase (SDR family) member 1), also known as SDR19C1, is a 313 amino acid protein that belongs to the short-chain dehydrogenases/reductases (SDR) family and likely functions as an oxidoreductase. Abundantly expressed in heart and liver, DHRS1 contains an SDR motif and is encoded by a gene that maps to human chromosome 14q12. Human chromosome 14 houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder  $\alpha$ 1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

## REFERENCES

1. Wu, Q., et al. 2001. Molecular cloning and characterization of a novel dehydrogenase/reductase (SDR family) member 1 gene from human fetal brain. *Mol. Biol. Rep.* 28: 193-198.
2. Avramopoulos, D., et al. 2005. Linkage to chromosome 14q in Alzheimer's disease (AD) patients without psychotic symptoms. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 132B: 9-13.
3. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610410. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Persson, B., et al. 2009. The SDR (short-chain dehydrogenase/reductase and related enzymes) nomenclature initiative. *Chem. Biol. Interact.* 178: 94-98.
5. Larner, A.J. and Doran, M. 2009. Genotype-phenotype relationships of presenilin-1 mutations in Alzheimer's disease: an update. *J. Alzheimers Dis.* 17: 259-265.
6. Topic, A., et al. 2009.  $\alpha$ -1-antitrypsin phenotypes in adult liver disease patients. *Ups. J. Med. Sci.* 114: 228-234.

## CHROMOSOMAL LOCATION

Genetic locus: DHRS1 (human) mapping to 14q12.

## SOURCE

DHRS1 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DHRS1 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-104873 P, (100  $\mu$ g 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

DHRS1 (C-13) is recommended for detection of DHRS1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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); non cross-reactive with other DHRS family members.

DHRS1 (C-13) is also recommended for detection of DHRS1 in additional species, including canine and bovine.

Suitable for use as control antibody for DHRS1 siRNA (h): sc-92152, DHRS1 shRNA Plasmid (h): sc-92152-SH and DHRS1 shRNA (h) Lentiviral Particles: sc-92152-V.

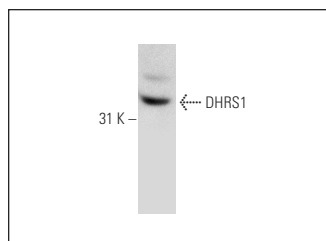
Molecular Weight of DHRS1: 34 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or COLO 320DM cell lysate: sc-2226.

## 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



DHRS1 (C-13): sc-104873. Western blot analysis of DHRS1 expression in Hep G2 whole cell lysate.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.