

# DHRS2 (1F10): sc-517054

## BACKGROUND

DHRS2 (dehydrogenase/reductase (SDR family) member 2), also known as SDR25C1 or HEP27, is a 258 amino acid protein that localizes to the nucleus and belongs to the short-chain dehydrogenase/reductase (SDR) family. Functioning as an NADPH-dependent dicarbonyl reductase, DHRS2 is thought to inhibit cell replication by either converting cortisone in cortisol, or by catalyzing the oxidation of androgen and estrogen. The gene encoding DHRS2 maps to human chromosome 14, which 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. Donadel, G., et al. 1991. Identification of a novel nuclear protein synthesized in growth-arrested human hepatoblastoma Hep G2 cells. *Eur. J. Biochem.* 195: 723-729.
2. Gabrielli, F., et al. 1995. A nuclear protein, synthesized in growth-arrested human hepatoblastoma cells, is a novel member of the short-chain alcohol dehydrogenase family. *Eur. J. Biochem.* 232: 473-477.
3. Pellegrini, S., et al. 2002. A human short-chain dehydrogenase/reductase gene: structure, chromosomal localization, tissue expression and subcellular localization of its product. *Biochim. Biophys. Acta* 1574: 215-222.
4. Heinz, S., et al. 2002. Genomic organization of the human gene HEP27: alternative promoter usage in HepG2 cells and monocyte-derived dendritic cells. *Genomics* 79: 608-615.
5. Shafiqat, N., et al. 2006. Hep27, a member of the short-chain dehydrogenase/reductase family, is an NADPH-dependent dicarbonyl reductase expressed in vascular endothelial tissue. *Cell. Mol. Life Sci.* 63: 1205-1213.
6. Persson, B., et al. 2009. The SDR (short-chain dehydrogenase/reductase and related enzymes) nomenclature initiative. *Chem. Biol. Interact.* 178: 94-98.

## CHROMOSOMAL LOCATION

Genetic locus: DHRS2 (human) mapping to 14q11.2.

## SOURCE

DHRS2 (1F10) is a mouse monoclonal antibody raised against amino acids 229-300 representing partial length DHRS2 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

DHRS2 (1F10) is recommended for detection of DHRS2 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

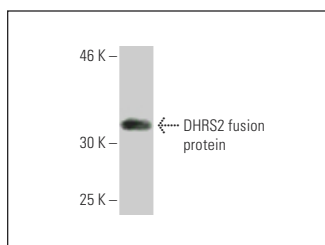
Suitable for use as control antibody for DHRS2 siRNA (h): sc-92153, DHRS2 shRNA Plasmid (h): sc-92153-SH and DHRS2 shRNA (h) Lentiviral Particles: sc-92153-V.

Molecular Weight of DHRS2: 28 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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).

## DATA



DHRS2 (1F10): sc-517054. Western blot analysis of human recombinant DHRS2 fusion protein.

## 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) for detailed protocols and support products.