

# HDMCP (S-12): sc-161700

## BACKGROUND

The hepatocellular carcinoma down-regulated mitochondrial carrier protein (HDMCP) is a 308 amino acid protein that belongs to the mitochondrial carrier family and contains three Solcar repeats. HDMCP is specifically expressed in liver and down-regulated in hepatocarcinoma. HDMCP is thought to be a long postulated uncoupling protein that catalyzes the physiological "proton leak" in the liver. HDMCP may also serve as a therapeutic target for its ability in alleviating hepatic steatosis. The gene encoding HDMCP maps to human chromosome 14, which contains about 700 genes and makes up about 3.5% of human cellular DNA. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder  $\alpha$ 1-antitrypsin deficiency. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein BCL3 in the (14;19) translocations found in a variety of B cell malignancies.

## REFERENCES

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4. Stolk, J., et al. 2006.  $\alpha$ 1-antitrypsin deficiency: current perspective on research, diagnosis, and management. *Int. J. Chron. Obstruct. Pulmon. Dis.* 1: 151-160.
5. Martín-Subero, J.I., et al. 2007. A comprehensive genetic and histopathologic analysis identifies two subgroups of B-cell malignancies carrying a t(14;19)(q32;q13) or variant BCL3-translocation. *Leukemia* 21: 1532-1544.
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7. Micci, F., et al. 2007. Molecular cytogenetic characterization of t(14;19)(q32;p13), a new recurrent translocation in B cell malignancies. *Virchows Arch.* 450: 559-565.
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## CHROMOSOMAL LOCATION

Genetic locus: SLC25A47 (human) mapping to 14q32.2; Slc25a47 (mouse) mapping to 12 F1.

## SOURCE

HDMCP (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HDMCP 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-161700 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

HDMCP (S-12) is recommended for detection of HDMCP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

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

Suitable for use as control antibody for HDMCP siRNA (h): sc-92416, HDMCP siRNA (m): sc-145916, HDMCP shRNA Plasmid (h): sc-92416-SH, HDMCP shRNA Plasmid (m): sc-145916-SH, HDMCP shRNA (h) Lentiviral Particles: sc-92416-V and HDMCP shRNA (m) Lentiviral Particles: sc-145916-V.

Molecular Weight of HDMCP: 33 kDa.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.