

HMGCLL1 (L-12): sc-136707

BACKGROUND

The 3-hydroxymethyl-3-methylglutaryl-CoA lyase-like protein 1 (HMGCLL1) is a 370 amino acid protein that belongs to the HMG-CoA lyase family and is involved in the catabolism of branched amino acids, such as leucine and isoleucine. The gene encoding HMGCLL1 maps to human chromosome 6, which contains around 1,200 genes within 170 million base pairs of sequence. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer suggesting the presence of a cancer susceptibility locus. Porphyrria cutanea tarda is associated with chromosome 6 through the HFE gene which, when mutated, predisposes an individual to developing this porphyria. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatibility complex proteins, which are key molecular components of the immune system and determine predisposition to rheumatic diseases, are also located on chromosome 6.

REFERENCES

- Mungall, A.J., et al. 2003. The DNA sequence and analysis of human chromosome 6. *Nature* 425: 805-811.
- Vuoristo, M.M., et al. 2004. A stop codon mutation in COL11A2 induces exon skipping and leads to non-ocular Stickler syndrome. *Am. J. Med. Genet. A* 130: 160-164.
- McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
- Batts, K.P. 2007. Iron overload syndromes and the liver. *Mod. Pathol.* 20 (Suppl. 1): S31-S39.
- Olsson, K.S., et al. 2007. The HLA-A1-B8 haplotype hitchhiking with the hemochromatosis mutation: does it affect the phenotype? *Eur. J. Haematol.* 79: 429-434.
- Park, E., et al. 2007. Modulation of parkin gene expression in noradrenergic neuronal cells. *Int. J. Dev. Neurosci.* 25: 491-497.

CHROMOSOMAL LOCATION

Genetic locus: HMGCLL1 (human) mapping to 6p12.1; Hmgcll1 (mouse) mapping to 9 D.

SOURCE

HMGCLL1 (L-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of HMGCLL1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136707 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

HMGCLL1 (L-12) is recommended for detection of HMGCLL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HMGCLL1 (L-12) is also recommended for detection of HMGCLL1 in additional species, including canine.

Suitable for use as control antibody for HMGCLL1 siRNA (h): sc-95556, HMGCLL1 siRNA (m): sc-146052, HMGCLL1 shRNA Plasmid (h): sc-95556-SH, HMGCLL1 shRNA Plasmid (m): sc-146052-SH, HMGCLL1 shRNA (h) Lentiviral Particles: sc-95556-V and HMGCLL1 shRNA (m) Lentiviral Particles: sc-146052-V.

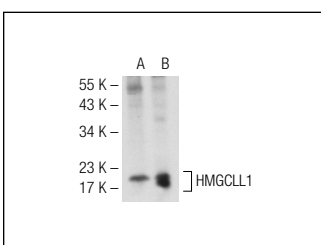
Molecular Weight of HMGCLL1 isoforms: 40/36/6 kDa.

Positive Controls: mouse brain extract: sc-2253 or mouse thyroid extract: sc-2407.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HMGCLL1 (L-12): sc-136707. Western blot analysis of HMGCLL1 expression in mouse thyroid (A) and mouse brain (B) tissue extracts.

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.