

HIATL1 (C-12): sc-137515

BACKGROUND

The Major facilitator superfamily consists of presumed carbohydrate transporters with 10-12 membrane-spanning domains. Belonging to the facilitator superfamily, HIAT1 is a multi-pass membrane protein that may function as a sugar transporter and is expressed in adult and embryonic brain. The HIAT1 gene was first observed while analyzing for active genes in neonatal mouse hippocampus. HIATL1 (hippocampus abundant transcript-like protein 1) is a 506 amino acid multi-pass membrane protein that also belongs to the Major facilitator superfamily. The gene encoding HIATL1 maps to human chromosome 9, which consists of about 145 million bases and encodes nearly 900 genes. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype. Notably, chromosome 9 encompasses the largest interferon family gene cluster. Chromosome 9 is partnered with chromosome 22 in the translocation leading to the aberrant production of Bcr-ABL fusion protein often found in leukemias.

REFERENCES

1. Gilbert, F., et al. 2001. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 9. Genet. Test.* 5: 157-174.
2. Humphray, S.J., et al. 2004. DNA sequence and analysis of human chromosome 9. *Nature* 429: 369-374.
3. Zheng, X., et al. 2006. BCR and its mutants, the reciprocal t(9;22)-associated ABL/BCR fusion proteins, differentially regulate the cytoskeleton and cell motility. *BMC Cancer* 6: 262.
4. Coppo, P., et al. 2006. BCR-ABL activates STAT3 via JAK and MEK pathways in human cells. *Br. J. Haematol.* 134: 171-179.
5. Burmeister, T., et al. 2007. Atypical BCR-ABL mRNA transcripts in adult acute lymphoblastic leukemia. *Haematologica* 92: 1699-1702.
6. Sreedharan, S., et al. 2010. Long evolutionary conservation and considerable tissue specificity of several atypical solute carrier transporters. *Gene* 478: 11-18.

CHROMOSOMAL LOCATION

Genetic locus: HIATL1 (human) mapping to 9q22.32; Hiatl1 (mouse) mapping to 13 B3.

SOURCE

HIATL1 (C-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of HIATL1 of human origin.

STORAGE

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

PROTOCOLS

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

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-137515 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HIATL1 (C-12) is recommended for detection of HIATL1 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); non cross-reactive with HIAT1 or HIATL2.

HIATL1 (C-12) is also recommended for detection of HIATL1 in additional species, including equine and canine.

Suitable for use as control antibody for HIATL1 siRNA (h): sc-92683, HIATL1 siRNA (m): sc-145956, HIATL1 shRNA Plasmid (h): sc-92683-SH, HIATL1 shRNA Plasmid (m): sc-145956-SH, HIATL1 shRNA (h) Lentiviral Particles: sc-92683-V and HIATL1 shRNA (m) Lentiviral Particles: sc-145956-V.

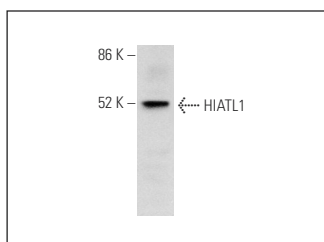
Molecular Weight of HIATL1: 55 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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



HIATL1 (C-12): sc-137515. Western blot analysis of HIATL1 expression in Jurkat whole cell lysate.

RESEARCH USE

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