

POMT1 (H-42): sc-98908

BACKGROUND

O-mannosylation is an essential protein modification in eukaryotes that is initiated by an evolutionarily conserved family of protein O-mannosyltransferases. The POMT1 (protein O-mannosyltransferase 1) protein consists of 725 amino acids. POMT1 contains 7 to 12 presumed transmembrane regions and a C-terminal ER membrane retention signal; RT-PCR reveals several mRNA splice variants. RNA dot blot analysis indicates ubiquitous expression of POMT1, with maximum levels in testis and high levels in fetal brain and pituitary tissues. Walker-Warburg syndrome (WWS), a severe, recessive, congenital muscular dystrophy associated with defects in neuronal migration that produce complex brain and eye abnormalities, is caused by mutations in the POMT1 gene.

REFERENCES

1. Akasaka-Manya, K., et al. 2004. Mutations of the POMT1 gene found in patients with Walker-Warburg syndrome lead to a defect of protein O-mannosylation. *Biochem. Biophys. Res. Commun.* 325: 75-79.
2. Ichimiya, T., et al. 2004. The twisted abdomen phenotype of *Drosophila* POMT1 and POMT2 mutants coincides with their heterophilic protein O-mannosyltransferase activity. *J. Biol. Chem.* 279: 42638-42647.

CHROMOSOMAL LOCATION

Genetic locus: POMT1 (human) mapping to 9q34.13; Pomt1 (mouse) mapping to 2 B.

SOURCE

POMT1 (H-42) is a rabbit polyclonal antibody raised against amino acids 227-268 mapping within an internal region of POMT1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

POMT1 (H-42) is recommended for detection of POMT1 isoforms 1, 2 and 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for POMT1 siRNA (h): sc-61379, POMT1 siRNA (m): sc-61380, POMT1 shRNA Plasmid (h): sc-61379-SH, POMT1 shRNA Plasmid (m): sc-61380-SH, POMT1 shRNA (h) Lentiviral Particles: sc-61379-V and POMT1 shRNA (m) Lentiviral Particles: sc-61380-V.

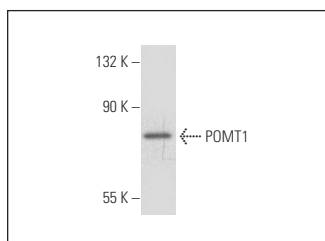
Molecular Weight of POMT1: 75 kDa.

Positive Controls: A-10 cell lysate: sc-3806, mouse testis extract: sc-2405 or c4 whole cell lysate: sc-364186.

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



POMT1 (H-42): sc-98908. Western blot analysis of POMT1 expression in A-10 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Cannon, J.R., et al. 2011. Pseudotype-dependent lentiviral transduction of astrocytes or neurons in the rat substantia nigra. *Exp. Neurol.* 228: 41-52.

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.



Try **POMT1 (G-10): sc-390451**, our highly recommended monoclonal alternative to POMT1 (H-42).