SANTA CRUZ BIOTECHNOLOGY, INC.

POMGnT1 (H-300): sc-33810

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The product of the POMGNT1 gene, protein O-mannose β-1, 2-N-acetylglucosaminyltransferase, participates in O-mannosyl glycan synthesis. POMGnT1 is an N(in)/C(out) (type II) membrane protein localized in the medial-Golgi that initiates the conversion of high mannose N-glycans to complex N-glycans. Specifically, POMGnT1 is a glycosylation enzyme that participates in the synthesis of O-mannosyl glycan, a laminin-binding ligand of α-dystroglycan that is rarely synthesized in mammals. Mutations in the POMGNT1 gene cause muscle-eye-brain disease (MEB), an autosomal recessive disorder characterized by congenital muscular dystrophy, ocular abnormalities and lissencephaly. Altered glycosylation of α-dystroglycan may play a critical role in the pathomechanism of MEB as well as Walker-Warburg syndrome (WWS), characterized by the absence of glycosylation of α-dystroglycan. The human POMGnT1 gene maps to chromosome 1p34.1 and encodes a 660-amino acid type II transmembrane protein.

CHROMOSOMAL LOCATION

Genetic locus: POMGNT1 (human) mapping to 1p34.1; Pomgnt1 (mouse) mapping to 4 D1.

SOURCE

POMGnT1 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of POMGnT1 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.

STORAGE

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

APPLICATIONS

POMGnT1 (H-300) is recommended for detection of POMGnT1 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).

POMGnT1 (H-300) is also recommended for detection of POMGnT1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for POMGnT1 siRNA (h): sc-40865, POMGnT1 siRNA (m): sc-40866, POMGnT1 shRNA Plasmid (h): sc-40865-SH, POMGnT1 shRNA Plasmid (m): sc-40866-SH, POMGnT1 shRNA (h) Lentiviral Particles: sc-40865-V and POMGnT1 shRNA (m) Lentiviral Particles: sc-40866-V.

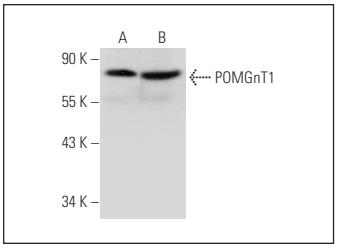
Molecular Weight of POMGnT1: 75 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

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



POMGnT1 (H-300): sc-33810. Western blot analysis of POMGnT1 expression in HeLa (**A**) and Hep G2 (**B**) whole cell lysates.

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.