

SLC35A3 (H-70): sc-292030

BACKGROUND

SLC35A3 (solute carrier family 35 (UDP-N-acetylglucosamine (UDP-GlcNAc) transporter), member A3) is a 325 amino acid multi-pass membrane protein that belongs to the SLC35A subfamily of the nucleotide-sugar transporter (NST) family. Members of the NST family are transmembrane proteins that mediate the translocation of nucleotide-sugars from the cytosol to the inter- or lumen of the endoplasmic reticulum (ER) and the Golgi apparatus via an antiport mechanism, exchanging nucleoside monophosphates for nucleotide-sugars. This activity of NSTs is important for providing an available source of nucleotide-sugars for glycoconjugate synthesis. Localizing to the Golgi apparatus membrane, SLC35A3 functions as a monospecific UDP-GlcNAc transporter. In cattle, mutations in the gene encoding SLC35A3 can result in complex vertebral malformation (CMV), a lethal disorder that is defined by fused and misshapen vertebrae near the cervico-thoracic junction.

REFERENCES

1. Ishida, N., et al. 1999. Molecular cloning and functional expression of the human Golgi UDP-N-acetylglucosamine transporter. *J. Biochem.* 126: 68-77.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605632. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Ghebranious, N., et al. 2006. Evaluation of SLC35A3 as a candidate gene for human vertebral malformations. *Am. J. Med. Genet. A* 140: 1346-1348.
4. Thomsen, B., et al. 2006. A missense mutation in the bovine SLC35A3 gene, encoding a UDP-N-acetylglucosamine transporter, causes complex vertebral malformation. *Genome Res.* 16: 97-9105.
5. Andersen, P.K., et al. 2007. Gene expression profiling, chromosome assignment and mutational analysis of the porcine Golgi-resident UDP-N-acetylglucosamine transporter SLC35A3. *Mol. Membr. Biol.* 24: 519-530.
6. Guillaume, F., et al. 2007. Refinement of two female fertility QTL using alternative phenotypes in French Holstein dairy cattle. *Anim. Genet.* 38: 72-74.

CHROMOSOMAL LOCATION

Genetic locus: SLC35A3 (human) mapping to 1p21.2; Slc35a3 (mouse) mapping to 3 G1.

SOURCE

SLC35A3 (H-70) is a rabbit polyclonal antibody raised against amino acids 196-265 mapping within an internal region of SLC35A3 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

SLC35A3 (H-70) is recommended for detection of SLC35A3 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).

SLC35A3 (H-70) is also recommended for detection of SLC35A3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SLC35A3 siRNA (h): sc-88392, SLC35A3 siRNA (m): sc-153529, SLC35A3 shRNA Plasmid (h): sc-88392-SH, SLC35A3 shRNA Plasmid (m): sc-153529-SH, SLC35A3 shRNA (h) Lentiviral Particles: sc-88392-V and SLC35A3 shRNA (m) Lentiviral Particles: sc-153529-V.

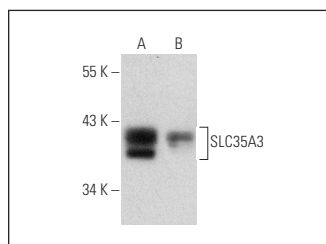
Molecular Weight of SLC35A3: 36 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or SK-BR-3 cell lysate: sc-2218.

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



SLC35A3 (H-70): sc-292030. Western blot analysis of SLC35A3 expression in MCF7 (A) and SK-BR-3 (B) whole cell lysates.

RESEARCH USE

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