10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Slc35D1 Antibody
Catalog # ASC10712

Specification

Slc35D1 Antibody - Product Information

Application	**WB**
Primary Accession	Q9NTN3
Other Accession	NP_055954, 14028875
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**Slc35D1 antibody can be used for detection of Slc35D1 by Western blot at 1 - 2 µg/mL.**

Slc35D1 Antibody - Additional Information

Gene ID **23169**

Target/Specificity
SLC35D1; This antibody is predicted to not cross-react with the highly homologous Slc35D2.

Reconstitution & Storage
Slc35D1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
Slc35D1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Slc35D1 Antibody - Protein Information

Name SLC35D1 {ECO:0000303|PubMed:31423530}

Synonyms KIAA0260, UGTREL7

Function
Antiporter that transports nucleotide sugars across the endoplasmic reticulum (ER) membrane in exchange for either their cognate nucleoside monophosphate or another nucleotide sugar (PubMed:16965264, PubMed:17599910, PubMed:31423530). Transports various UDP-sugars including UDP-N-acetyl-alpha-D-glucosamine (UDP-GlcNAc), UDP-N-acetyl-alpha-D-galactosamine (UDP-GalNAc) and UDP-alpha-D- glucuronate (UDP-GlcA), which are used by ER glucosyltransferases as sugar donors for the synthesis of sugar chains of glycoproteins, glycolipids and oligosaccharides (PubMed:11322953, PubMed:16965264, PubMed:<a

href="http://www.uniprot.org/citations/17599910" target="_blank">17599910, PubMed:31423530, PubMed:17952091). May couple UDP- GlcNAc or UDP-GalNAc efflux to UDP-GlcA influx into the ER lumen that in turn stimulates glucuronidation and subsequent excretion of endobiotics and xenobiotics (PubMed:16965264, PubMed:17599910). Plays a role in chondroitin sulfate biosynthesis, which is important for formation of cartilage extracellular matrix and normal skeletal development (By similarity).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein

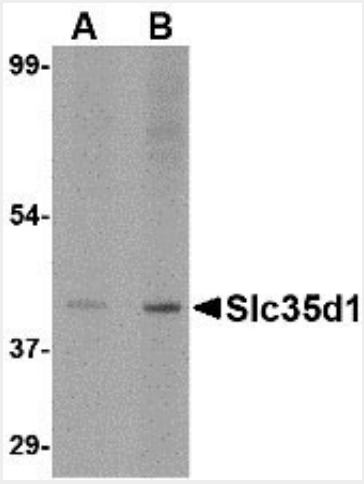
Tissue Location
Ubiquitous..

Slc35D1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Slc35D1 Antibody - Images



Western blot analysis of Slc35D1 inA-20 lysate with Slc35D1 antibody at (A) 1 and (B) 2 µg/mL.

Slc35D1 Antibody - Background

Slc35D1 Antibody: The solute carrier family Slc35 consists of at least 17 proteins that act as nucleotide sugar transporters localized to the Golgi apparatus and endoplasmic reticulum. The role of the ER-resident Slc family member Slc35D1 is to transport both UDP-glucuronic acid and UDP-N-acetylgalactosamine. These molecules can serve as substrates for chondroitin sulfate

biosynthesis and mice lacking the Slc35D1 gene developed a lethal form of skeletal dysplasia with severe shortening of limbs and facial structures. Examination of epiphyseal cartilage in these mice revealed a decreased proliferating zone with round chrondrocytes, scarce matrices, and reduced proteoglycan aggregates. Loss of function mutations in human Slc35D1 cause Schneckenbecken dysplasia, a severe skeletal dysplasia.

Slc35D1 Antibody - References

Ishida N and Kawakita M. Molecular physiology and pathology of the nucleotide sugar transporter family (SLC35). Pflugers Arch.2004; 447:768-75.
Muraoka M, Kawakita M, and Ishita N. Molecular characterization of human UDP-glucuronic acid/UDP-N-acetylgalactosamine transporter, a novel nucleotide sugar transporter with dual substrate specificity. FEBS Lett.2001; 495:87-93.
Hiraoka S, Furuichi T, Nishimura G, et al. Nucleotide-sugar transporter Slc35D1 is critical to chondroitin sulfate synthesis in cartilage and skeletal development in mouse and human. Nat. Med.2007; 13:1363-7.