

# Glt28d2 (D-12): sc-169947

## BACKGROUND

Glt28d2 (glycosyltransferase 28 domain containing 2) is a 165 amino acid protein that is encoded by a gene mapping to mouse chromosome X F2. The human homolog of Glt28d2, ALG13, is a subunit of a bipartite UDP-N-acetylglucosamine transferase and plays a role in protein folding regulation and stabilization. ALG13 contains one OTU domain, one TudorSN domain, and exists as four alternatively spliced isoforms. Heterodimerizing with ALG14, ALG13 forms a UDP-GlcNAc glycosyltransferase, which catalyzes the second sugar addition of the oligosaccharide precursor in endoplasmic reticulum (ER) N-linked glycosylation. ALG13 localizes to the ER and may be recruited to the cytosolic face of the membrane by interacting with ALG14.

## REFERENCES

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- Averbeck, N., et al. 2007. Membrane topology of the Alg14 endoplasmic reticulum UDP-GlcNAc transferase subunit. *J. Biol. Chem.* 282: 29081-29088.
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- Wang, X., et al. 2008. Solution structure of Alg13: the sugar donor subunit of a yeast N-acetylglucosamine transferase. *Structure* 16: 965-975.
- Chaban, B., et al. 2009. AgIC and AgIK are involved in biosynthesis and attachment of diacetylated glucuronic acid to the N-glycan in *Methanococcus voltae*. *J. Bacteriol.* 191: 187-195.

## CHROMOSOMAL LOCATION

Genetic locus: ALG13 (human) mapping to Xq23; Alg13 (mouse) mapping to X F2.

## SOURCE

Glt28d2 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Glt28d2 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-169947 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Glt28d2 (D-12) is recommended for detection of Alg13 of human origin; and Alg13 and Glt28d2 of mouse and rat 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); non cross-reactive with other ALG family members.

Suitable for use as control antibody for ALG13 siRNA (h): sc-91187, Alg13 siRNA (m): sc-141013, ALG13 shRNA Plasmid (h): sc-91187-SH, Alg13 shRNA Plasmid (m): sc-141013-SH, ALG13 shRNA (h) Lentiviral Particles: sc-91187-V and Alg13 shRNA (m) Lentiviral Particles: sc-141013-V.

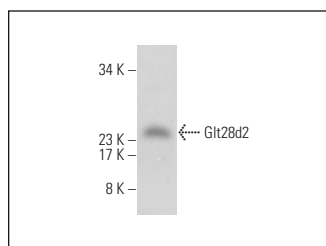
Molecular Weight of Glt28d2: 18 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Glt28d2 (D-12): sc-169947. Western blot analysis of Glt28d2 expression in Hep G2 whole cell lysate.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.