SANTA CRUZ BIOTECHNOLOGY, INC.

ALG8 (A-13): sc-103376

BACKGROUND

ALG8 (asparagine-linked glycosylation 8) is a 526 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum and belongs to the ALG6/ALG8 glucosyltransferase family. Involved in protein modification events, ALG8 functions to transfer glucose from dolichyl phosphate glucose to a lipid-linked oligosaccharide, effectively adding a second glucose residue to the lipid-linked oligosaccharide precursor for N-linked glycosylation. Defects in the gene encoding ALG8 are the cause of congenital disorder of glycosylation type 1H (CDG1H), an inherited disease that is caused by under-glycosylated serum proteins and is characterized by psychomotor retardation, dysmorphic features, hypotonia, coagulation disorders and immunodeficiency. The gene encoding ALG8 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome.

REFERENCES

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3. Oriol, R., et al. 2002. Common origin and evolution of glycosyltransferases using Dol-P-monosaccharides as donor substrate. Mol. Biol. Evol. 19: 1451-1463.
4. Chantret, I., et al. 2003. A deficiency in dolichyl-P-glucose:Glc1Man9 GlcNAc2-PP-dolichyl α3-glucosyltransferase defines a new subtype of congenital disorders of glycosylation. J. Biol. Chem. 278: 9962-9971.
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CHROMOSOMAL LOCATION

Genetic locus: ALG8 (human) mapping to 11q14.1; Alg8 (mouse) mapping to 7 E1.

SOURCE

ALG8 (A-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ALG8 of human origin.

STORAGE

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

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-103376 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ALG8 (A-13) is recommended for detection of ALG8 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); non cross-reactive with other ALG family members.

ALG8 (A-13) is also recommended for detection of ALG8 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ALG8 siRNA (h): sc-96751, ALG8 siRNA (m): sc-105056, ALG8 shRNA Plasmid (h): sc-96751-SH, ALG8 shRNA Plasmid (m): sc-105056-SH, ALG8 shRNA (h) Lentiviral Particles: sc-96751-V and ALG8 shRNA (m) Lentiviral Particles: sc-105056-V.

Molecular Weight of ALG8: 60 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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.

RESEARCH USE

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