

# ALG2 (D-14): sc-107140

## BACKGROUND

Glycosylation of asparagine residues is an essential protein modification reaction that occurs upon most proteins that enter the secretory pathway in eukaryotic cells. Asparagine-linked oligosaccharides are transferred onto polypeptides in the lumen of the rough endoplasmic reticulum. ALG2 (asparagine-linked glycosylation 2) is a 416 amino acid single-pass membrane protein that localizes to the endoplasmic reticulum (ER). ALG14 is involved in protein mannosylation and specifically is involved in the synthesis of Man3GlcNAc(2)-dolichol diphosphate. Defects in the gene encoding ALG2 is the cause of congenital disorder of glycosylation type 1λ, which results in severe systemic effects, such as psychomotor retardation, immunodeficiency, dysmorphic features and defects in nervous system development. There are two isoforms of ALG2 that are produced as a result of alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ALG2 (human) mapping to 9q22.33; Alg2 (mouse) mapping to 4 B1.

## SOURCE

ALG2 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ALG2 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.

Blocking peptide available for competition studies, sc-107140 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ALG2 (D-14) is recommended for detection of ALG2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

ALG2 (D-14) is also recommended for detection of ALG2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ALG2 siRNA (h): sc-92608, ALG2 siRNA (m): sc-141014, ALG2 shRNA Plasmid (h): sc-92608-SH, ALG2 shRNA Plasmid (m): sc-141014-SH, ALG2 shRNA (h) Lentiviral Particles: sc-92608-V and ALG2 shRNA (m) Lentiviral Particles: sc-141014-V.

Molecular Weight of ALG2: 47 kDa.

## 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) 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.

## 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.