

DPAGT1 (P-14): sc-137438

BACKGROUND

DPAGT1 (UDP-N-acetylglucosamine-dolichyl-phosphate N-acetylglucosaminophosphotransferase), also known as G1PT (GlcNAc-1-P transferase) or DPAGT2, is a 408 amino acid member of the glycosyltransferase 4 protein family. Localized to the endoplasmic reticulum membrane, DPAGT1 is involved in protein modification, specifically glycosylation. DPAGT1 catalyzes the initial step in the synthesis of dolichol-P-P-oligosaccharides. Defects in the gene that encodes DPAGT1 are the cause of congenital disorder of glycosylation type 1J (CDG1J). Congenital disorders of glycosylation (CDGs) are a family of severe inherited diseases caused by a defect in protein N-glycosylation. CDGs cause a variety of clinical features including dysmorphic features, psychomotor retardation, hypotonia, coagulation disorders and immunodeficiency.

REFERENCES

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- Nita-Lazar, M., et al. 2009. Overexpression of DPAGT1 leads to aberrant N-glycosylation of E-cadherin and cellular dis-cohesion in oral cancer. *Cancer Res.* 69: 5673-5680.
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CHROMOSOMAL LOCATION

Genetic locus: DPAGT1 (human) mapping to 11q23.3; Dpagt1 (mouse) mapping to 9 A5.2.

SOURCE

DPAGT1 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of DPAGT1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-137438 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DPAGT1 (P-14) is recommended for detection of DPAGT1 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).

DPAGT1 (P-14) is also recommended for detection of DPAGT1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DPAGT1 siRNA (h): sc-96745, DPAGT1 siRNA (m): sc-143149, DPAGT1 shRNA Plasmid (h): sc-96745-SH, DPAGT1 shRNA Plasmid (m): sc-143149-SH, DPAGT1 shRNA (h) Lentiviral Particles: sc-96745-V and DPAGT1 shRNA (m) Lentiviral Particles: sc-143149-V.

Molecular Weight of DPAGT1 isoforms: 46/34 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 or our catalog for detailed protocols and support products.