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DPAGT1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9967a

Product Information

Application	WB, E
Primary Accession	Q9H3H5
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23874
Calculated MW	46090
Antigen Region	286-315

Additional Information

Gene ID	1798
Other Names	UDP-N-acetylglucosamine--dolichyl-phosphate N-acetylglucosaminephosphotransferase, GlcNAc-1-P transferase, G1PT, GPT, N-acetylglucosamine-1-phosphate transferase, DPAGT1, DPAGT2
Target/Specificity	This DPAGT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 286-315 amino acids from the Central region of human DPAGT1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DPAGT1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GPT
Function	UDP-N-acetylglucosamine--dolichyl-phosphate N-acetylglucosaminephosphotransferase that operates in the biosynthetic pathway of dolichol-linked oligosaccharides, the glycan precursors employed

	in protein asparagine (N)-glycosylation. The assembly of dolichol-linked oligosaccharides begins on the cytosolic side of the endoplasmic reticulum membrane and finishes in its lumen. The sequential addition of sugars to dolichol pyrophosphate produces dolichol-linked oligosaccharides containing fourteen sugars, including two GlcNAcs, nine mannoses and three glucoses. Once assembled, the oligosaccharide is transferred from the lipid to nascent proteins by oligosaccharyltransferases. Catalyzes the initial step of dolichol-linked oligosaccharide biosynthesis, transfering GlcNAc-1-P from cytosolic UDP-GlcNAc onto the carrier lipid dolichyl phosphate (P- dolichol), yielding GlcNAc-P-P-dolichol embedded in the cytoplasmic leaflet of the endoplasmic reticulum membrane.
Cellular Location	Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P23338}; Multi-pass membrane protein

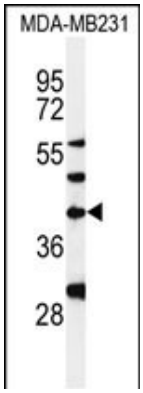
Background

DPAGT1 encoded by this gene is an enzyme that catalyzes the first step in the dolichol-linked oligosaccharide pathway for glycoprotein biosynthesis. This enzyme belongs to the glycosyltransferase family 4. This protein is an integral membrane protein of the endoplasmic reticulum. The congenital disorder of glycosylation type Ij is caused by mutation in the gene encoding this enzyme.

References

Nita-Lazar, M., et al. Cancer Res. 69(14):5673-5680(2009)
Bretthauer, R.K. Curr Drug Targets 10(6):477-482(2009)
Wu, X., et al. Hum. Mutat. 22(2):144-150(2003)

Images



Western blot analysis of DPAGT1 Antibody (Center) (Cat. #AP9967a) in MDA-MB231 cell line lysates (35ug/lane). DPAGT1 (arrow) was detected using the purified Pab.

Citations

- Congenital Myasthenic Syndrome caused by mutations in DPAGT.