10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ALG10 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9961a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q5BKT4
Other Accession	O88788, Q3UGP8, Q5I7T1
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23663
Calculated MW	55606
Antigen Region	17-43

Additional Information

Gene ID	84920
Other Names	Dol-P-Glc:Glc(2)Man(9)GlcNAc(2)-PP-Dol alpha-1, 2-glucosyltransferase, Alpha-1, 2-glucosyltransferase ALG10-A, Alpha-2-glucosyltransferase ALG10-A, Asparagine-linked glycosylation protein 10 homolog A, ALG10, ALG10A
Target/Specificity	This ALG10 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 17-43 amino acids from the N-terminal region of human ALG10.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	ALG10 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ALG10 (HGNC:23162)
Function	Dol-P-Glc:Glc(2)Man(9)GlcNAc(2)-PP-Dol alpha-1,2- glucosyltransferase 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. In the lumen of the endoplasmic reticulum, adds the third and last glucose residue from dolichyl phosphate glucose (Dol-P-Glc) onto the lipid-linked oligosaccharide intermediate Glc(2)Man(9)GlcNAc(2)-PP-Dol to produce Glc(3)Man(9)GlcNAc(2)-PP-Dol.

Cellular Location Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q5I7T1}; Multi-pass membrane protein

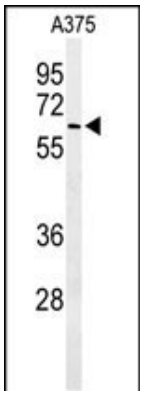
Background

ALG10 encodes a membrane-associated protein that adds the third glucose residue to the lipid-linked oligosaccharide precursor for N-linked glycosylation. That is, it transfers the terminal glucose from dolichyl phosphate glucose (Dol-P-Glc) onto the lipid-linked oligosaccharide Glc2Man9GlcNAc(2)-PP-Dol. The rat protein homolog was shown to specifically modulate the gating function of the rat neuronal ether-a-go-go (EAG) potassium ion channel.

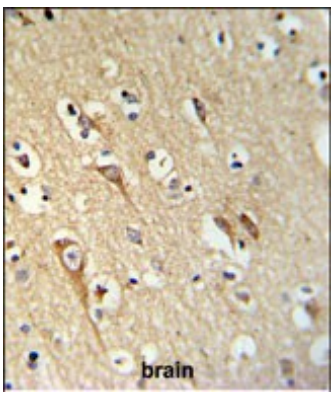
References

Chapuis, J., et al. Mol. Psychiatry 14(11):1004-1016(2009)
Seshadri, S., et al. BMC Med. Genet. 8 SUPPL 1, S15 (2007)
Kupershmidt, S., et al. FASEB J. 17(15):2263-2265(2003)

Images



Western blot analysis of ALG10 Antibody (N-term) (Cat. #AP9961a) in A375 cell line lysates (35ug/lane). ALG10 (arrow) was detected using the purified Pab.



ALG10 Antibody (N-term) (Cat. #AP9961a) IHC analysis in formalin fixed and paraffin embedded brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ALG10 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.