

#### ALG5 Antibody (Center) Blocking Peptide Synthetic peptide Catalog # BP17876c

Specification

# ALG5 Antibody (Center) Blocking Peptide - Product Information

Primary Accession

### <u>Q9Y673</u>

# ALG5 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 29880

**Other Names** 

Dolichyl-phosphate beta-glucosyltransferase, DolP-glucosyltransferase, Asparagine-linked glycosylation protein 5 homolog, ALG5

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage** Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions** This product is for research use only. Not for use in diagnostic or therapeutic procedures.

# ALG5 Antibody (Center) Blocking Peptide - Protein Information

Name ALG5 (HGNC:20266)

#### Function

Dolichyl-phosphate beta-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. Dolichyl-phosphate beta-glucosyltransferase produces dolichyl beta-D-glucosyl phosphate/Dol-P-Glc, the glucose donor substrate used sequentially by ALG6, ALG8 and ALG10 to add glucose residues on top of the Man(9)GlcNAc(2)-PP-Dol structure. These are the three last steps in the biosynthetic pathway of dolichol-linked oligosaccharides to produce Glc(3)Man(9)GlcNAc(2)-PP-Dol. The enzyme is most probably active on the cytoplasmic side of the endoplasmic reticulum while its product Dol-P-Glc is the substrate for ALG6, ALG8 and ALG11 in the lumen of the endoplasmic reticulum.

### **Cellular Location**

Endoplasmic reticulum membrane; Single-pass membrane protein



### Tissue Location

Expressed in pancreas, placenta, liver, heart, brain, kidney, skeletal muscle, and lung

## ALG5 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

<u>Blocking Peptides</u>

### ALG5 Antibody (Center) Blocking Peptide - Images

### ALG5 Antibody (Center) Blocking Peptide - Background

This gene encodes a member of the glycosyltransferase 2family. The encoded protein participates in glucosylation of theoligomannose core in N-linked glycosylation of proteins. Theaddition of glucose residues to the oligomannose core is necessaryto ensure substrate recognition, and therefore, effectual transferof the oligomannose core to the nascent glycoproteins. Multipletranscript variants encoding different isoforms have been found forthis gene.

### ALG5 Antibody (Center) Blocking Peptide - References

Imbach, T., et al. Proc. Natl. Acad. Sci. U.S.A. 96(12):6982-6987(1999)