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

# ALG2 Antibody (Center) Blocking Peptide

**Synthetic peptide**
**Catalog # BP17233c**

## Specification

### ALG2 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q9H553

### ALG2 Antibody (Center) Blocking Peptide - Additional Information

**Gene ID** 85365

**Other Names**
Alpha-1, 3/1, 6-mannosyltransferase ALG2, Asparagine-linked glycosylation protein 2 homolog, GDP-Man:Man(1)GlcNAc(2)-PP-Dol alpha-1, 3-mannosyltransferase, GDP-Man:Man(1)GlcNAc(2)-PP-dolichol mannosyltransferase, GDP-Man:Man(2)GlcNAc(2)-PP-Dol alpha-1, 6-mannosyltransferase, ALG2

**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.

### ALG2 Antibody (Center) Blocking Peptide - Protein Information

**Name** ALG2

**Function**
Mannosyltransferase 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, on the cytoplasmic face of the endoplasmic reticulum, the addition of the second and third mannose residues to the dolichol-linked oligosaccharide chain, to produce Man3GlcNAc(2)-PP-dolichol core oligosaccharide. Man3GlcNAc(2)-PP- dolichol is a substrate for ALG11, the following enzyme in the biosynthetic pathway (PubMed:<a href="http://www.uniprot.org/citations/12684507" target="_blank">12684507</a>, PubMed:<a href="http://www.uniprot.org/citations/35136180" target="_blank">35136180</a>). While both alpha 1,3 and alpha 1,6 linkages are possible, the sequential addition of alpha 1,3 followed by alpha 1,6 is probably the preferred route (PubMed:<a href="http://www.uniprot.org/citations/35136180" target="_blank">35136180</a>).

**Cellular Location**
Endoplasmic reticulum membrane; Single-pass membrane protein. Note=Active on cytoplasmic side of endoplasmic reticulum membrane.

## ALG2 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

## ALG2 Antibody (Center) Blocking Peptide - Images

## ALG2 Antibody (Center) Blocking Peptide - Background

This gene encodes a member of the glycosyltransferase 1family. The encoded protein acts as an alpha 1,3mannosyltransferase, mannosylating Man(2)GlcNAc(2)-dolicholdiphosphate and Man(1)GlcNAc(2)-dolichol diphosphate to formMan(3)GlcNAc(2)-dolichol diphosphate. Defects in this gene havebeen associated with congenital disorder of glycosylation type Ih(CDG-Ii). Alternative splicing results in multiple transcriptvariants.

## ALG2 Antibody (Center) Blocking Peptide - References

Inuzuka, T., et al. BMC Struct. Biol. 10, 25 (2010) :Okumura, M., et al. Biochem. Biophys. Res. Commun. 386(1):237-241(2009)Hoj, B.R., et al. Biochem. Biophys. Res. Commun. 378(1):145-148(2009)Mahul-Mellier, A.L., et al. J. Biol. Chem. 283(50):34954-34965(2008)la Cour, J.M., et al. Mol Oncol 1(4):431-439(2008)