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

C2CD2L Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP17349b

Specification

C2CD2L Antibody (C-term) Blocking Peptide - Product Information

Primary Accession O14523

C2CD2L Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 9854

Other Names
C2 domain-containing protein 2-like, Transmembrane protein 24, C2CD2L, KIAA0285, TMEM24

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.

C2CD2L Antibody (C-term) Blocking Peptide - Protein Information

Name C2CD2L (HGNC:29000)

Function
Lipid-binding protein that transports phosphatidylinositol, the precursor of phosphatidylinositol 4,5-bisphosphate (PI(4,5)P2), from its site of synthesis in the endoplasmic reticulum to the cell membrane (PubMed:28209843). It thereby maintains the pool of cell membrane phosphoinositides, which are degraded during phospholipase C (PLC) signaling (PubMed:28209843). Plays a key role in the coordination of Ca(2+) and phosphoinositide signaling: localizes to sites of contact between the endoplasmic reticulum and the cell membrane, where it tethers the two bilayers (PubMed:28209843). In response to elevation of cytosolic Ca(2+), it is phosphorylated at its C-terminus and dissociates from the cell membrane, abolishing phosphatidylinositol transport to the cell membrane (PubMed:28209843). Positively regulates insulin secretion in response to glucose: phosphatidylinositol transfer to the cell membrane allows replenishment of PI(4,5)P2 pools and calcium channel opening, priming a new population of insulin granules (PubMed:28209843).

Cellular Location

Endoplasmic reticulum membrane; Single-pass membrane protein. Cell membrane; Peripheral membrane protein. Note=Localizes to sites of contact between the endoplasmic reticulum and the cell membrane (PubMed:28209843). Embedded into the endoplasmic reticulum membrane via its N-terminal transmembrane domain and associates with cell membrane via its C-terminus (PubMed:28209843). In response to elevation of cytosolic Ca(2+), it is phosphorylated at its C-terminus and dissociates from the cell membrane and localizes to the reticular endoplasmic reticulum (PubMed:28209843). Reassociates with cell membrane upon dephosphorylation (PubMed:28209843)

C2CD2L Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

C2CD2L Antibody (C-term) Blocking Peptide - Images

C2CD2L Antibody (C-term) Blocking Peptide - Background

The specific function of this protein remains unknown.

C2CD2L Antibody (C-term) Blocking Peptide - References

Olsen, J.V., et al. Cell 127(3):635-648(2006)Calinisan, V., et al. Front. Biosci. 11, 1646-1666 (2006) :Katoh, M., et al. Int. J. Oncol. 25(3):759-764(2004)Ohara, O., et al. DNA Res. 4(1):53-59(1997)