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CDIPT Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP9044c

Specification

CDIPT Antibody (Center) Blocking Peptide - Product Information

Primary Accession O14735

CDIPT Antibody (Center) Blocking Peptide - Additional Information

Gene ID 10423

Other Names
CDP-diacylglycerol--inositol 3-phosphatidyltransferase, Phosphatidylinositol synthase, PI synthase, PtdIns synthase, CDIPT, PIS, PIS1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP9044c was selected from the Center region of human CDIPT. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

CDIPT Antibody (Center) Blocking Peptide - Protein Information

Name CDIPT (HGNC:1769)

Synonyms PIS, PIS1

Function
Catalyzes the biosynthesis of phosphatidylinositol (PtdIns) as well as PtdIns:inositol exchange reaction. May thus act to reduce an excessive cellular PtdIns content. The exchange activity is due to the reverse reaction of PtdIns synthase and is dependent on CMP, which is tightly bound to the enzyme.

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein

Tissue Location
Detected in placenta (at protein level). Widely expressed. Higher expression in adult liver and skeletal muscle, slightly lower levels seen in pancreas, kidney, lung, placenta, brain, heart, leukocyte, colon, small intestine, ovary, testis, prostate, thymus and spleen. In fetus, expressed in kidney, liver, lung and brain.

CDIPT Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

CDIPT Antibody (Center) Blocking Peptide - Images

CDIPT Antibody (Center) Blocking Peptide - Background

CDIPT is a protein which is phosphatidylinositol breakdown products that are ubiquitous second messengers that function downstream of many G protein-coupled receptors and tyrosine kinases regulating cell growth, calcium metabolism, and protein kinase C activity. Two enzymes, CDP-diacylglycerol synthase and phosphatidylinositol synthase, are involved in the biosynthesis of phosphatidylinositol. Phosphatidylinositol synthase, a member of the CDP-alcohol phosphatidyl transferase class-I family, is an integral membrane protein found on the cytoplasmic side of the endoplasmic reticulum and the Golgi apparatus.

CDIPT Antibody (Center) Blocking Peptide - References

de Serres,F.J., et.al., Monaldi Arch Chest Dis 63 (3), 133-141 (2005)Lykidis,A., et.al., J. Biol. Chem. 272 (52), 33402-33409 (1997)