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CDS1 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP10750a

Specification

CDS1 Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q92903

CDS1 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 1040

Other Names
Phosphatidate cytidylyltransferase 1, CDP-DAG synthase 1, CDP-DG synthase 1, CDP-diacylglycerol synthase 1, CDS 1, CDP-diglyceride pyrophosphorylase 1, CDP-diglyceride synthase 1, CTP:phosphatidate cytidylyltransferase 1, CDS1, CDS

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.

CDS1 Antibody (N-term) Blocking peptide - Protein Information

Name CDS1 (HGNC:1800)

Synonyms CDS

Function
Catalyzes the conversion of phosphatidic acid (PA) to CDP- diacylglycerol (CDP-DAG), an essential intermediate in the synthesis of phosphatidylglycerol, cardiolipin and phosphatidylinositol (PubMed:25375833, PubMed:9407135). Exhibits almost no acyl chain preference for PA, showing no discrimination for the sn-1/sn-2 acyl chain composition of PAs (PubMed:25375833). Plays an important role in regulating the growth of lipid droplets which are storage organelles at the center of lipid and energy homeostasis (PubMed:26946540, PubMed:31548309). Positively regulates the differentiation and development of adipocytes (By similarity).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein

Tissue Location
Expressed in adult tissues such as placenta, brain, small intestine, ovary, testis and prostate. Highly expressed in fetal kidney, lung and brain. Lower level in fetal liver

CDS1 Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

CDS1 Antibody (N-term) Blocking peptide - Images

CDS1 Antibody (N-term) Blocking peptide - Background

Breakdown products of phosphoinositides are ubiquitoussecond messengers that function downstream of many Gprotein-coupled receptors and tyrosine kinases regulating cellgrowth, calcium metabolism, and protein kinase C activity. Thisgene encodes an enzyme which regulates the amount ofphosphatidylinositol available for signaling by catalyzing theconversion of phosphatidic acid to CDP-diacylglycerol. This enzymeis an integral membrane protein localized to two subcellulardomains, the matrix side of the inner mitochondrial membrane whereit is thought to be involved in the synthesis ofphosphatidylglycerol and cardiolipin and the cytoplasmic side ofthe endoplasmic reticulum where it functions inphosphatidylinositol biosynthesis. Two genes encoding this enzymehave been identified in humans, one mapping to human chromosome4q21 and a second to 20p13.

CDS1 Antibody (N-term) Blocking peptide - References

Bailey, S.D., et al. Diabetes Care (2010) In press :Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)Volik, S., et al. Genome Res. 16(3):394-404(2006)Volta, M., et al. Genomics 55(1):68-77(1999)Halford, S., et al. Genomics 54(1):140-144(1998)