

PDP1 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP12453c

Specification

PDP1 Antibody (Center) Blocking peptide - Product Information

Primary Accession [Q9P0J1](#)

PDP1 Antibody (Center) Blocking peptide - Additional Information

Gene ID 54704

Other Names

[Pyruvate dehydrogenase [acetyl-transferring]]-phosphatase 1, mitochondrial, PDP 1, Protein phosphatase 2C, Pyruvate dehydrogenase phosphatase catalytic subunit 1, PDPC 1, PDP1, PDP, PPM2C

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.

PDP1 Antibody (Center) Blocking peptide - Protein Information

Name PDP1 ([HGNC:9279](#))

Synonyms PDP, PPM2C

Function

Mitochondrial enzyme that catalyzes the dephosphorylation and concomitant reactivation of the alpha subunit of the E1 component of the pyruvate dehydrogenase complex (PDC), thereby stimulating the conversion of pyruvate into acetyl-CoA.

Cellular Location

Mitochondrion.

PDP1 Antibody (Center) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

PDP1 Antibody (Center) Blocking peptide - Images**PDP1 Antibody (Center) Blocking peptide - Background**

Pyruvate dehydrogenase (E1) is one of the three components (E1, E2, and E3) of the large pyruvate dehydrogenase complex. Pyruvate dehydrogenase kinases catalyze phosphorylation of serine residues of E1 to inactivate the E1 component and inhibit the complex. Pyruvate dehydrogenase phosphatases catalyze the dephosphorylation and activation of the E1 component to reverse the effects of pyruvate dehydrogenase kinases. Pyruvate dehydrogenase phosphatase is a heterodimer consisting of catalytic and regulatory subunits. Two catalytic subunits have been reported; one is predominantly expressed in skeletal muscle and another one is much more abundant in the liver. The catalytic subunit, encoded by this gene, is the former, and belongs to the protein phosphatase 2C (PP2C) superfamily. Along with the pyruvate dehydrogenase complex and pyruvate dehydrogenase kinases, this enzyme is located in the mitochondrial matrix. Mutation in this gene causes pyruvate dehydrogenase phosphatase deficiency. Multiple alternatively spliced transcript variants encoding different isoforms have been identified.

PDP1 Antibody (Center) Blocking peptide - References

Kato, J., et al. Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. 66 (PT 3), 342-345 (2010)
:Cameron, J.M., et al. Hum. Genet. 125(3):319-326(2009) Stellingwerff, T., et al. Am. J. Physiol. Endocrinol. Metab. 290 (2), E380-E388 (2006) :Maj, M.C., et al. J. Clin. Endocrinol. Metab. 90(7):4101-4107(2005) Piccinini, M., et al. Obes. Res. 13(4):678-686(2005)