PDP1 Peptide - N-Terminal Region Blocking Peptide

PRODUCT OVERVIEW

Product Name	PDP1, Blocking Peptide
Full Product Name	PDP1 Peptide - N-terminal region
Product Gene Name	PDP1 blocking peptide
Product Synonym Gene Name	PDH; PDP; PDPC; PPM2C
Sequence	Synthetic peptide located within the following region: SSSYIPQSRL RYTPHPAYAT FCRPKENWWQ YTQGRRYAST PQKFYLTPPQ
Species Reactivity	Human
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	PDP1 peptide (MBS3246468) is used for blocking the activity of PDP1 antibody (MBS3221742)
Molecular Weight	59 kDa
OMIM	AF155661 mRNA
Product Categories/Family for PDP1 blocking peptide	Peptide
Related Product Information for PDP1 blocking peptide	This is a synthetic peptide designed for use in combination with anti- PDP1 Antibody, made Target Description: 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 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.
Other Notes	Small volumes of PDP1 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PDP1 purchase	MBS3246468 is a blocking peptide targeting PDP1. Also known as PDP1 Peptide - N-terminal region. Reactive in Human.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PDP1. It may not necessarily be applicable to this product.

NCBI GI #	239985422
NCBI GeneID	54704
NCBI Accession #	NP_001155251.1
UniProt Primary Accession #	Q9P0J1

UniProt Related Accession #	Q9P0J1
GenBank Nucleotide #	NM_001161779.1
NCBI Official Full Name	pyruvate dehyrogenase phosphatase catalytic subunit 1 isoform 2
NCBI Official Synonym Full Names	pyruvate dehyrogenase phosphatase catalytic subunit 1
NCBI Official Symbol	PDP1
NCBI Official Synonym Symbols	PDH; PDP; PDPC; PPM2A; PPM2C
UniProt Protein Name	[Pyruvate dehydrogenase [acetyl-transferring]]-phosphatase 1, mitochondrial
UniProt Synonym Protein Names	Protein phosphatase 2C; Pyruvate dehydrogenase phosphatase catalytic subunit 1; PDPC 1
Protein Family	PWWP domain-containing protein
UniProt Gene Name	PDP1
UniProt Synonym Gene Names	PDP; PPM2C; PDP 1; PDPC 1
NCBI Protein Information	pyruvate dehyrogenase phosphatase catalytic subunit 1
NCBI Summary for PDP1	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 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.[provided by RefSeq, Jun 2009]
UniProt Comments for PDP1	Catalyzes the dephosphorylation and concomitant reactivation of the alpha subunit of the E1 component of the pyruvate dehydrogenase complex.
Research Articles on PDP1	**1.** High PDH expression is associated with glucose intolerance.
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