PDHB Peptide - N-Terminal Region Blocking Peptide

PRODUCT OVERVIEW

Product Name	PDHB, Blocking Peptide
Full Product Name	PDHB Peptide - N-terminal region
Product Gene Name	PDHB blocking peptide
Product Synonym Gene Name	DKFZp564K0164; PHE1B; PDHBD
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	PDHB peptide (MBS3233847) is used for blocking the activity of PDHB antibody (MBS3208882)
Molecular Weight	39kDa
OMIM	gene 614111
Product Categories/Family for PDHB blocking peptide	Peptide
Applications Tested/Suitable for PDHB blocking peptide	Western Blot (WB)
Related Product Information for PDHB blocking peptide	This is a synthetic peptide designed for use in combination with anti-PDHB antibody made Target Description: The pyruvate dehydrogenase complex catalyzes the overall conversion of pyruvate to acetyl-CoA and CO2. It contains multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and lipoamide dehydrogenase (E3).
Other Notes	Small volumes of PDHB 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 PDHB purchase	MBS3233847 is a blocking peptide targeting PDHB. Also known as PDHB Peptide - N-terminal region.

ADDITIONAL DETAILS

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

NCBI GI #	156564403
NCBI GeneID	5162
NCBI Accession #	NP_000916
UniProt Primary Accession #	P11177
UniProt Related Accession #	P11177
GenBank Nucleotide #	NM_000925
NCBI Official Full Name	pyruvate dehydrogenase E1 component subunit beta, mitochondrial isoform 1
NCBI Official Synonym Full Names	pyruvate dehydrogenase E1 beta subunit
NCBI Official Symbol	PDHB
NCBI Official Synonym Symbols	PDHBD; PHE1B; PDHE1B; PDHE1-B

UniProt Protein Name	Pyruvate dehydrogenase E1 component subunit beta, mitochondrial
Protein Family	Pyruvate dehydrogenase E1 component
UniProt Gene Name	PDHB
UniProt Synonym Gene Names	PHE1B; PDHE1-B
UniProt Entry Name	ODPB_HUMAN
NCBI Protein Information	pyruvate dehydrogenase E1 component subunit beta, mitochondrial
NCBI Summary for PDHB	The pyruvate dehydrogenase (PDH) complex is a nuclear-encoded mitochondrial multienzyme complex that catalyzes the overall conversion of pyruvate to acetyl-CoA and carbon dioxide, and provides the primary link between glycolysis and the tricarboxylic acid (TCA) cycle. The PDH complex is composed of multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and lipoamide dehydrogenase (E3). The E1 enzyme is a heterotetramer of two alpha and two beta subunits. This gene encodes the E1 beta subunit. Mutations in this gene are associated with pyruvate dehydrogenase E1-beta deficiency. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Mar 2012]
UniProt Comments for PDHB	PDHB: the beta subunit of pyruvate dehydrogenase (PDH), a mitochondrial matrix enzyme that catalyzes the oxidative decarboxylation of pyruvate, producing acetyl-CoA and CO2. A key enzyme in controlling the balance between lipid and glucose oxidation depending on substrate availability. The pyruvate dehydrogenase (PDH) holoenzyme is a multi-enzyme complex (PDHC) that contains 20-30 copies of pyruvate decarboxylase tetramers (2 alpha:2 beta)(E1), 60 copies of dihydrolipoamide acetyltransferase (E2), six homodimers of dihydrolipoamide dehydrogenase (E3), plus E3 binding proteins. Defects in PDHB are a cause of pyruvate dehydrogenase E1 component deficiency (PDHE1 deficiency), the most common enzyme defect in patients with primary lactic acidosis. It is associated with variable clinical phenotypes ranging from neonatal death to prolonged survival complicated by developmental delay, seizures, ataxia, apnea, and in some cases to an X-linked form of Leigh syndrome (LS). Two alternatively spliced human isoforms have been described. Protein type: Carbohydrate Metabolism - citrate (TCA) cycle; Amino Acid Metabolism - valine, leucine and isoleucine biosynthesis; EC 1.2.4.1; Carbohydrate Metabolism - pyruvate; Oxidoreductase; Carbohydrate Metabolism - glycolysis and gluconeogenesis; Mitochondrial; Carbohydrate Metabolism - butanoate Chromosomal Location of Human Ortholog: 3p21.1-p14.2 Cellular Component: nucleoplasm; mitochondrion; mitochondrial matrix; pyruvate dehydrogenase complex; nucleus Molecular Function: protein binding; pyruvate dehydrogenase activity; pyruvate dehydrogenase (acetyl-transferring) activity Biological Process: cellular metabolic process; acetyl-CoA biosynthetic process from pyruvate; tricarboxylic acid cycle; glucose metabolic process; regulation of acetyl-CoA biosynthetic process from pyruvate; pyruvate metabolic process Disease: Pyruvate Dehydrogenase E1-beta Deficiency
Research Articles on PDHB	**1.** PDHB was downregulated in nasopharyngeal carcinoma cells. Forced expression of PDHB in NPC cells inhibited cell growth and migration, while knocking down the expression of PDHB promoted the growth, migration, and tumorigenesis of NPC cells. PDHB inhibited ERK signaling and cell growth driven by RasV12.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.

Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/blocking-peptide/pdhb/3233847