PPP2R4 Blocking Peptide (N-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	PPP2R4, Blocking Peptide
Full Product Name	PPP2R4 Blocking Peptide (N-Term)
Product Gene Name	PPP2R4 blocking peptide
Product Synonym Gene Name	PTPA
Product Synonym Names	Serine/threonine-protein phosphatase 2A activator; 5.2.1.8; PP2A; subunit B'; PR53 isoform; Phosphotyrosyl phosphatase activator; PTPA; Serine/threonine-protein phosphatase 2A regulatory subunit 4; Serine/threonine-protein phosphatase 2A regulatory subunit B'; PPP2R4; PTPA
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence is selected from aa 3-15 of HUMAN PPP2R4
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	PPP2R4 peptide (MBS9230575) is used for blocking the activity of PPP2R4 antibody (MBS9216969)
Molecular Weight	31,859 Da
OMIM	600756
Cellular Location	Cytoplasm. Nucleus
Tissue Location	Widely expressed.
Related Product Information for PPP2R4 blocking peptide	PPIases accelerate the folding of proteins. It catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides. Acts as a regulatory subunit for serine/threonine- protein phosphatase 2A (PP2A) modulating its activity or substrate specificity, probably by inducing a conformational change in the catalytic subunit, a proposed direct target of the PPIase. Can reactivate inactive phosphatase PP2A-phosphatase methylesterase complexes (PP2A(i)) in presence of ATP and Mg(2+) (By similarity). Reversibly stimulates the variable phosphotyrosyl phosphatase activity of PP2A core heterodimer PP2A(D) in presence of ATP and Mg(2+) (in vitro). The phosphotyrosyl phosphatase activity is dependent of an ATPase activity of the PP2A(D):PPP2R4 complex. Is involved in apoptosis; the function appears to be independent from PP2A.
Other Notes	Small volumes of PPP2R4 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 PPP2R4 purchase	MBS9230575 is a blocking peptide targeting PPP2R4. Also known as PPP2R4 Blocking Peptide (N-Term).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PPP2R4. It may not necessarily be applicable to this product.

NCBI GI #	116242737
NCBI GeneID	5524
NCBI Accession #	Q15257.3
UniProt Primary Accession #	Q15257
UniProt Secondary Accession #	Q15258; Q53GZ3; Q5TZQ2; Q9BUK1; Q9NNZ7; Q9NNZ8; Q9NNZ9; A2A347; A9IZU4; B4DXM4

UniProt Related Accession #	Q15257
NCBI Official Full Name	Serine/threonine-protein phosphatase 2A activator
NCBI Official Synonym Full Names	protein phosphatase 2 phosphatase activator
NCBI Official Symbol	PTPA
NCBI Official Synonym Symbols	PP2A; PR53; PPP2R4
UniProt Protein Name	Serine/threonine-protein phosphatase 2A activator
UniProt Synonym Protein Names	PP2A, subunit B', PR53 isoform; Phosphotyrosyl phosphatase activator; PTPA; Serine/threonine-protein phosphatase 2A regulatory subunit 4; Serine/threonine-protein phosphatase 2A regulatory subunit B'
UniProt Gene Name	PPP2R4
UniProt Synonym Gene Names	PTPA; PTPA
UniProt Entry Name	PTPA_HUMAN
NCBI Protein Information	serine/threonine-protein phosphatase 2A activator
NCBI Summary for PPP2R4	Protein phosphatase 2A is one of the four major Ser/Thr phosphatases and is implicated in the negative control of cell growth and division. Protein phosphatase 2A holoenzymes are heterotrimeric proteins composed of a structural subunit A, a catalytic subunit C, and a regulatory subunit B. The regulatory subunit is encoded by a diverse set of genes that have been grouped into the B/PR55, B'/PR61, and B"/PR72 families. These different regulatory subunits confer distinct enzymatic specificities and intracellular localizations to the holozenzyme. The product of this gene belongs to the B' family. This gene encodes a specific phosphotyrosyl phosphatase activator of the dimeric form of protein phosphatase 2A. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]
UniProt Comments for PPP2R4	PPP2R4: PPIases accelerate the folding of proteins. It catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides. Acts as a regulatory subunit for serine/threonine- protein phosphatase 2A (PP2A) modulating its activity or substrate specificity, probably by inducing a conformational change in the catalytic subunit, a proposed direct target of the PPIase. Can reactivate inactive phosphatase PP2A-phosphatase methylesterase complexes (PP2A(i)) in presence of ATP and Mg(2+). Reversibly stimulates the variable phosphotyrosyl phosphatase activity of PP2A core heterodimer PP2A(D) in presence of ATP and Mg(2+) (in vitro). The phosphotyrosyl phosphatase activity is dependent of an ATPase activty of the PP2A(D):PPP2R4 complex. Is involved in apoptosis; the function appears to be independent from PP2A. Associates with PP2A heterodimeric core enzyme PP2A(D), composed of a 36 kDa catalytic subunit (subunit C) and a 65 kDa constant regulatory subunit (PR65 or subunit A). Interacts with PPP2CB. Widely expressed. Belongs to the PTPA-type PPIase family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Motility/polarity/chemotaxis; EC 5.2.1.8; Protein phosphatase, regulatory subunit Chromosomal Location of Human Ortholog: 9q34 Cellular Component: cytoplasm; nucleoplasm; nucleus; protein phosphatase type 2A complex Molecular Function: ATP binding; ATPase activity; peptidyl-prolyl cis-trans isomerase activity; protein binding; protein heterodimerization activity; protein homodimerization activity; protein phosphatase 2A binding; protein phosphatase type 2A regulator activity; protein tyrosine phosphatase activator activity; receptor binding Biological Process: mitotic spindle organization and biogenesis in nucleus; negative regulation of phosphoprotein phosphatase activity; negative regulation of protein amino acid dephosphorylation; positive regulation of apoptosis; positive regulation of phosphoprotein phosphatase activity; positive regulation of protein amino acid dephosphorylation; regulation of phosphoprotein phosphatase activity
Research Articles on PPP2R4	**1.** Cohesin complex is shown to be a target of the prophase pathway at centrosomes and protected by Sgo1-dependent PP2A recruitment.
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