Protein Tyrosine Phosphatase Type IVA 2 (PTP4A2) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Protein tyrosine phosphatase type IVA 2 (PTP4A2), Recombinant Protein
Full Product Name	Recombinant Human Protein tyrosine phosphatase type IVA 2 (PTP4A2)
Product Gene Name	PTP4A2 recombinant protein
Product Synonym Gene Name	PTP4A2
Sequence	MNRPAPVEIS YENMRFLITH NPTNATLNKF TEELKKYGVT TLVRVCDATY DKAPVEKEGI HVLDWPFDDG APPPNQIVDD WLNLLKTKFR EEPGCCVAVH CVAGLGRAPV LVALALIECG MKYEDAVQFI RQKRRGAFNS KQLLYLEKYR PKMRLRFRDT NGHC
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	16,367 Da
Sequence Positions	1-164, Full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
OMIM	601584
3D Structure	ModBase 3D Structure for Q12974
Species	Human
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for PTP4A2 recombinant protein	This protein belongs to a small class of the protein tyrosine phosphatase (PTP) family. PTPs are cell signaling molecules that play regulatory roles in a variety of cellular processes. PTPs in this class contain a protein tyrosine phosphatase catalytic domain and a characteristic C-terminal prenylation motif. This PTP has been shown to primarily associate with plasmic and endosomal membrane through its C-terminal prenylation. This PTP was found to interact with the beta-subunit of Rab geranylgeranyltransferase II (beta GGT II), and thus may function as a regulator of GGT II activity. Overexpression of this gene in mammalian cells conferred a transformed phenotype, which suggested its role in tumorigenesis. Alternatively spliced transcript variants that encode two distinct isoforms have been described.
Other Notes	Small volumes of PTP4A2 recombinant protein 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 PTP4A2 purchase	MBS1353687 is a recombinant protein targeting PTP4A2. Also known as Recombinant Human Protein tyrosine phosphatase type IVA 2 (PTP4A2). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PTP4A2. It may not necessarily be applicable to this product.

NCBI GI #	304361762
NCBI GeneID	8073
NCBI Accession #	NP_001182029.1
UniProt Primary Accession #	Q12974
UniProt Secondary Accession #	O00649; Q15197; Q15259; Q15260; Q15261; A8K9I8; B4DM39; D3DPP0; E9PGJ6; R4GN50
UniProt Related Accession #	Q12974
GenBank Nucleotide #	NM_001195100.1
NCBI Official Full Name	protein tyrosine phosphatase type IVA 2 isoform 3
NCBI Official Synonym Full Names	protein tyrosine phosphatase type IVA, member 2
NCBI Official Symbol	PTP4A2
NCBI Official Synonym Symbols	HH13; OV-1; PRL2; HH7-2; PRL-2; PTP4A; HU-PP-1; PTPCAAX2; ptp-IV1a; ptp-IV1b
UniProt Protein Name	Protein tyrosine phosphatase type IVA 2
UniProt Synonym Protein Names	HU-PP-1; OV-1; PTP(CAAXII); Protein-tyrosine phosphatase 4a2; Protein-tyrosine phosphatase of regenerating liver 2; PRL-2
Protein Family	Protein tyrosine phosphatase
UniProt Gene Name	PTP4A2
UniProt Synonym Gene Names	PRL2; PTPCAAX2; PRL-2
NCBI Protein Information	protein tyrosine phosphatase type IVA 2
NCBI Summary for PTP4A2	The protein encoded by this gene belongs to a small class of the protein tyrosine phosphatase (PTP) family. PTPs are cell signaling molecules that play regulatory roles in a variety of cellular processes. PTPs in this class contain a protein tyrosine phosphatase catalytic domain and a characteristic C-terminal prenylation motif. This PTP has been shown to primarily associate with plasmic and endosomal membrane through its C-terminal prenylation. This PTP was found to interact with the beta-subunit of Rab geranylgeranyltransferase II (beta GGT II), and thus may function as a regulator of GGT II activity. Overexpression of this gene in mammalian cells conferred a transformed phenotype, which suggested its role in tumorigenesis. Alternatively spliced transcript variants have been described. Related pseudogenes exist on chromosomes 11, 12 and 17. [provided by RefSeq, Aug 2010]
UniProt Comments for PTP4A2	Protein tyrosine phosphatase which stimulates progression from G1 into S phase during mitosis. Promotes tumors. Inhibits geranylgeranyl transferase type II activity by blocking the association between RABGGTA and RABGGTB.
Research Articles on PTP4A2	**1.** Our findings highlight the important role of miR-29c in regulating CRC EMT via GSK-3b/b-catenin signaling by targeting GNA13 and PTP4A and provide new insights into the metastatic basis of colorectal cancer
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