Datasheet for ABIN7317331

PTPMT1 Protein (His tag)

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Overview

Quantity:	50 µg
Target:	PTPMT1
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This PTPMT1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human PTPMT1 Protein (His Tag)(Active)
Sequence:	Lys 28-Thr 201
Characteristics:	A DNA sequence encoding the human PTPMT1 isoform 1 (Q8WUK0-1) (Lys 28-Thr 201) was expressed, with a polyhistidine tag at the N-terminus.
Purity:	> 94 % as determined by reducing SDS-PAGE.
Biological Activity Comment:	Measured by its ability to cleave pNPP.The specific activity is >200 pmoles/min/µg.

Target Details

Target:	PTPMT1
Alternative Name:	PTPMT1 (PTPMT1 Products)
Background:	Background: PTPMT1 (PTP localized to the Mitochondrion 1) is a member of the protein

Target Details

	tyrosine phosphatase superfamily that is localized exclusively to the mitochondrion. It has been recently reported that PTPMT1 dephosphorylates phosphatidylglycerol phosphate, an essential intermediate of cardiolipin biosynthesis. PTPMT1 deficiency in mouse embryonic fibroblasts compromises mitochondrial respiration and results in abnormal mitochondrial morphology. Lipid analysis of PTPMT1-deficient fibroblasts reveals an accumulation of PGP along with a concomitant decrease in phosphatidylglycerol. Modulation of mitochondrial ATP synthesis by PTPMT1 suggests a novel approach for the treatment of pancreatic cancers, which represent some of the deadliest forms of human tumors. The gluttony of cancer cells for energy is well established, and with the development of a modulator of expression, one may hope that we could also achieve the synthetic induction of PTPMT1 expression. It would then be expected that this effect would attenuate, if not abolish, the growth of pancreas-derived tumor cells and support the establishment of a novel regimen for pancreatic cancers. Synonym: DUSP23;FLJ46081;MOSP;PLIP;PNAS-129
Molecular Weight:	21.7 kDa
Pathways:	Inositol Metabolic Process

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, 10 % glycerol, 1 mM DTT, pH 7.5
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.