

Product datasheet for **AR09675PU-L**

Inositol monophosphatase / IMPA1 (1-277, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Inositol monophosphatase / IMPA1 (1-277, His-tag) human recombinant protein, 0.5 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMATP PKRSCPSFSA SSEGTRIKKI SIEGNIAAGK STFVNILKQL CEDWEVPEP VARWCNVQST QDEFEELTMS QKNGGNVLQM MYEKPERWSF TFQTYACLSR IRAQLASLNG KLKDAEKVPL FFRSVYSR YIFASNLYES ECMNETEWI YQDWHDMN QFGQSLELDG IYQLATPET CLHRIYLRGR NEEQGIPLEY LEKLHYKHES WLLHRTLKTN FDYLQEVPI TLDVNEFDK KYESLVEKVK EFLSTL
Tag:	His-tag
Predicted MW:	32.3 kDa
Concentration:	lot specific
Purity:	>95%
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl Buffer (pH 8.0) containing 10% Glycerol
Preparation:	Liquid purified protein
Protein Description:	Recombinant human IMPA1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_001138350
Locus ID:	3612
UniProt ID:	P29218
Cytogenetics:	8q21.13
Synonyms:	IMPA, IMPase 1



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Summary:

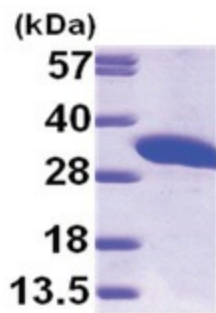
This gene encodes an enzyme that dephosphorylates myo-inositol monophosphate to generate free myo-inositol, a precursor of phosphatidylinositol, and is therefore an important modulator of intracellular signal transduction via the production of the second messengers myoinositol 1,4,5-trisphosphate and diacylglycerol. This enzyme can also use myo-inositol-1,3-diphosphate, myo-inositol-1,4-diphosphate, scyllo-inositol-phosphate, glucose-1-phosphate, glucose-6-phosphate, fructose-1-phosphate, beta-glycerophosphate, and 2'-AMP as substrates. This enzyme shows magnesium-dependent phosphatase activity and is inhibited by therapeutic concentrations of lithium. Inhibition of inositol monophosphate hydrolysis and subsequent depletion of inositol for phosphatidylinositol synthesis may explain the anti-manic and anti-depressive effects of lithium administered to treat bipolar disorder. Alternative splicing results in multiple transcript variants encoding distinct isoforms. A pseudogene of this gene is also present on chromosome 8q21.13. [provided by RefSeq, Dec 2014]

Protein Families:

Druggable Genome

Protein Pathways:

Inositol phosphate metabolism, Metabolic pathways, Phosphatidylinositol signaling system

Product images:

15% SDS-PAGE (3ug)