



Recombinant Pig Inositol monophosphatase 1 (IMPA1)

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| Product Code | CSB-MP011694PI |
| Storage | Store at -20°C, for extended storage, conserve at -20°C or -80°C. |
| Uniprot No. | O77591 |
| Product Type | Recombinant Protein |
| Immunogen Species | Sus scrofa (Pig) |
| Purity | >85% (SDS-PAGE) |
| Sequence | MADPWQECMD YAVTLARQAG EIVREALKNE MNIMIKSSPA DLVTATDEKV EKMLISSIKE KYP SHSFIGE ESVAAGEKSV LTDNPTWIID PIDGTTNFVH GFPFVAVSIG FVVNKGMEFG VVYSCMEDKM YTGRKGRGAF CDGQKLQVSP QKDVTNSLLV TELGSSRTPE TVRIILSNME RLLCIPIHGI RGGVTAALNM CFVAAGVADA FYEMGIHCWD MAGAGIIVTE AGGVLMDITG GPFDLMSRRV IASSNKALGE RIAKEIQIIP LQRDDED |
| Source | Mammalian cell |
| Target Names | IMPA1 |
| Protein Names | Recommended name: Inositol monophosphatase 1 Short name= IMP 1 Short name= IMPase 1 EC= 3.1.3.25 Alternative name(s): Inositol-1(or 4)-monophosphatase 1 Lithium-sensitive myo-inositol monophosphatase A1 |
| Expression Region | 1-277 |
| Notes | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| Tag Info | Tag type will be determined during the manufacturing process. |
| Protein Length | Full length protein |
| Target Details | 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 myo-inositol 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. |



Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.