

# Recombinant Human IMPA1, His-tagged

**Cat. No.** IMPA1-2824H    **Lot. No.** (See product label)

## SPECIFICATION

|                                 |                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>         | Recombinant human IMPA1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography. MW = 32.3 kDa(297aa), confirmed by MALDI-TOF.                                                                                                                                                                                           |
| <b>Species</b>                  | Human                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>                   | E.coli                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>              | IMPA1 (inositol monophosphatase1) is responsible for the provision of inositol required for synthesis of phosphatidylinositol and polyphosphoinositides. It plays a key role in the phosphatidylinositol signaling pathway by catalyzing the hydrolysis of inositol monophosphates. This protein has been identified as the pharmacological target for lithium action in the brain. |
| <b>Sequences Of Amino Acids</b> | MGSSHHHHHH SSGLVPRGSH MADPWQECMD YAVTLARQAG EVVCEAIKNE<br>MNVMLKSSPV DLVTATDQKV EKMLISSIKE KYPSHSFIGE ESVAAGEKSI<br>LTDNPTWIID PIDGTTNFVH RFPFVAVSIG FAVNKKIEFG VVYSCVEGKM<br>YTARKGKGAF CNGQKLQVSQ QEDITKSLV TELGSSRTPE TVRMVLSNME<br>KLFCIPVHGI RSVGTAAVNM CLVATGGADA YYEMGIHCWD VAGAGIIVTE<br>AGGVLMDDVTG GPFDLMSRRV IAANNRILAE RIAKEIQVIP LQRDDED                               |
| <b>Purity</b>                   | > 95% by SDS - PAGE.                                                                                                                                                                                                                                                                                                                                                                |
| <b>Form</b>                     | Liquid. In 20 mM Tris-HCl Buffer (pH 8.0) containing 10% Glycerol.                                                                                                                                                                                                                                                                                                                  |

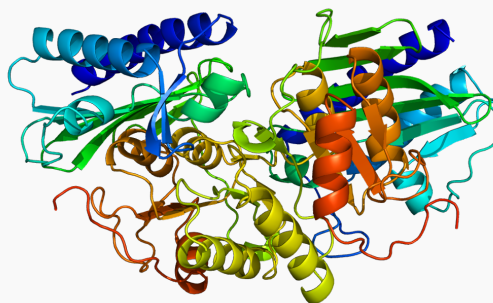
 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|                            |                                                                                                                                                                                                            |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Concentration</b>       | 1 mg/ml (determined by Bradford assay).                                                                                                                                                                    |
| <b>Storage</b>             | Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.                                                      |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                            |
| <b>Gene Name</b>           | IMPA1 inositol(myo)-1(or 4)-monophosphatase 1 [ Homo sapiens ]                                                                                                                                             |
| <b>Synonyms</b>            | IMPA1; inositol(myo)-1(or 4)-monophosphatase 1; IMP; IMPA; inositol monophosphatase 1; IMP 1; IMPase 1; inositol-1(or 4)-monophosphatase 1; lithium-sensitive myo-inositol monophosphatase A1; EC 3.1.3.25 |
| <b>Gene ID</b>             | 3612                                                                                                                                                                                                       |
| <b>mRNA Refseq</b>         | NM_001144878                                                                                                                                                                                               |
| <b>Protein Refseq</b>      | NP_001138350                                                                                                                                                                                               |
| <b>MIM</b>                 | 602064                                                                                                                                                                                                     |
| <b>UniProt ID</b>          | P29218                                                                                                                                                                                                     |
| <b>Chromosome Location</b> | 8q21.13-q21.3                                                                                                                                                                                              |
| <b>Pathway</b>             | Inositol phosphate metabolism; Metabolic pathways; Phosphatidylinositol signaling system                                                                                                                   |
| <b>Function</b>            | hydrolase activity; identical protein binding; inositol-1(or 4)-monophosphatase activity; metal ion binding; protein homodimerization activity                                                             |

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on 1awb.



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