## Overview

| Quantity: | $20 \mu \mathrm{~g}$ |
| :--- | :--- |
| Target: | IMPA1 |
| Protein Characteristics: | Transcript Variant 1 |
| Origin: | Human |
| Source: | HeK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This IMPA1 protein is labelled with Myc-DYKDDDDK Tag. |
| Application: | Antibody Production (AbP), Standard (STD) |

## Product Details

| Characteristics: | Recombinant human Inositol monophosphatase / IMPA1 (transcript variant 1) protein <br>  <br>  <br> expressed in HEK293 cells. |
| :--- | :--- |
| Purity: | $>80$ \% as determined by SDS-PAGE and Coomassie blue staining |$\quad$| Target Details | IMPA1 |
| :--- | :--- |
| Target: | Inositol Monophosphatase,impa1 (IMPA1 Products) |
| Alternative Name: | This gene encodes an enzyme that dephosphorylates myo-inositol monophosphate to generate <br> free myo-inositol, a precursor of phosphatidylinositol, and is therefore an important modulator |
| Background: | 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-6phosphate, fructose-1-phosphate, beta-glycerophosphate, and 2\&apos-AMP as substrates. This enzyme shows magnesium-dependent phosphatase activity and is inhibited by therapeutic concentrations of lithium. Inhibition of inositol monophosphate hydroylosis and subsequent depletion of inositol for phosphatidylinositol synthesis may explain the anti-manic and antidepressive 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. |
| :---: | :---: |
| Molecular Weight: | 30 kDa |
| NCBI Accession: | NP_005527 |
| Application Details |  |
| Application Notes: | Recombinant human proteins can be used for: <br> Native antigens for optimized antibody production <br> Positive controls in ELISA and other antibody assays |
| Comment: | The tag is located at the C-terminal. |
| Restrictions: | For Research Use only |
| Handling |  |
| Concentration: | $50 \mu \mathrm{~g} / \mathrm{mL}$ |
| Buffer: | 25 mM Tris. $\mathrm{HCl}, \mathrm{pH} 7.3,100 \mathrm{mM}$ glycine, $10 \%$ glycerol. |
| Storage: | $-80^{\circ} \mathrm{C}$ |
| Storage Comment: | Store at $-80^{\circ} \mathrm{C}$. Thaw on ice, aliquot to individual single-use tubes, and then re-freeze immediately. Only 2-3 freeze thaw cycles are recommended. |



## Western Blotting

Image 1. Validation with Western Blot

