

Recombinant Human IMPA1

Catalog No: #GP12902



Package Size: #GP12902-1 100ug

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Description

Product Name	Recombinant Human IMPA1
Brief Description	Recombinant Protein
Immunogen Description	Fusion protein corresponding to a region derived from 1-215AA amino acids of human IMPA1
Target Name	inositol monophosphatase 1
Other Names	IMP; IMPA
Accession No.	Swissprot:P29218Gene Accession:BC009565
Uniprot	P29218
GeneID	3612;
Storage	-20~-80°C, pH 7.6 PBS

Background

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.

References

Note: For in vitro research use only, not for diagnostic or therapeutic use. This product is not a medical device.

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