

IMPA1

Reactivity: Human Mouse Rat

Tested applications: WB IHC IF

Recommended Dilution: WB 1:500 - 1:2000 IHC 1:50 - 1:200 IF 1:10 - 1:100

Calculated MW: 30kDa

Observed MW: Refer to Figures

Immunogen:

Recombinant protein of human IMPA1

Storage Buffer:

Store at -20. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Synonym:

IMP; IMPA;

Catalog #: A6381

Antibody Type:

Polyclonal Antibody

Species: Rabbit

Gene ID: 3612

Isotype: IgG

Swiss Prot: P29218

Purity: Affinity purification

For research use only.

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.

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