

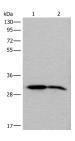
Tel:240-252-7368(USA) Fax: 240-252-7376(USA) techsupport@elabscience.com Website: www.elabscience.com

IMPA1 Polyclonal Antibody

Catalog No. E-AB-52592 Reactivity H,M,R Store at -20°C. Avoid freeze / thaw cycles. **Storage** Host Rabbit **Applications** WB,ELISA **Isotype IgG**

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Images



Western blot analysis of Human cerebrum tissue and Mouse brain tissue lysates using IMPA1 Polyclonal Antibody at dilution of 1:300

Immunogen Information

Immunogen Fusion protein of human IMPA1

Gene Accession BC009565 P29218 **Swissprot**

Synonyms IMPA1,IMPase 1,IMPase,Lithium-sensitive myo-

inositol monophosphatase A1

Product Information

Calculated MW 30 kDa

Observed MW Refer to figures

Buffer PBS with 0.05% NaN3 and 40% Glycerol,pH7.4

Purify Antigen affinity purification

Dilution WB 1:500-1:2000, ELISA 1:5000-1:10000

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, myoinositol-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 hydroylosis 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.