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Rabbit Anti-IMPA1 antibody

SL16623R

Product Name:	IMPA1
Chinese Name:	肌醇单磷酸酶1抗体
Alias:	IMP 1; IMP; IMPA 1; IMPA; IMPA1; IMPA1_HUMAN; IMPase 1; IMPase; Inositol 1(or 4) monophosphatase; Inositol monophosphatase 1; Inositol monophosphatase; Inositol(myo) 1(or 4) monophosphatase 1; Inositol(myo)-1(or 4)-monophosphatase 1; Inositol-1(or 4)-monophosphatase 1; Inositol-1(or 4)-monophosphatase; Lithium sensitive myo inositol monophosphatase A1; Lithium-sensitive myo-inositol monophosphatase A1
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Mouse,Rat,Cow,Horse,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	30kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human IMPA1:101-200/277
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene encodes an enyzme 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 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. [provided by RefSeq, Nov 2009]

Function:
Responsible for the provision of inositol required for synthesis of phosphatidylinositol and polyphosphoinositides and has been implicated as the pharmacological target for lithium action in brain. Can use myo-inositol monophosphates, 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.

Subcellular Location:
Cytoplasm.

Similarity:
Belongs to the inositol monophosphatase family.

SWISS:
P29218

Gene ID:
3612

Database links:

Entrez Gene: 3612 Human

Entrez Gene: 55980 Mouse

Entrez Gene: 83523 Rat

Omim: 602064 Human

SwissProt: P29218 Human

SwissProt: O55023 Mouse

	SwissProt: P97697 Rat Unigene: 656694 Human Unigene: 183042 Mouse Unigene: 3975 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.