

IMPA1 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8723b**Specification**

IMPA1 Antibody - Product Information

Application	WB,E
Primary Accession	P29218
Reactivity	Human
Predicted	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG1, κ
Calculated MW	30189

IMPA1 Antibody - Additional Information**Gene ID** 3612**Other Names**

Inositol monophosphatase 1, IMP 1, IMPase 1, 3.1.3.25, D-galactose 1-phosphate phosphatase, 3.1.3.94, Inositol-1(or 4)-monophosphatase 1, Lithium-sensitive myo-inositol monophosphatase A1, IMPA1, IMPA

Target/Specificity

This IMPA1 antibody is generated from a mouse immunized with a recombinant protein from the human region of human IMPA1.

Dilution

WB~~1:1000-1:2000

E~~Use at an assay dependent concentration.

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

IMPA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

IMPA1 Antibody - Protein Information**Name** IMPA1 ([HGNC:6050](#))**Synonyms** IMPA

Function Phosphatase involved in the dephosphorylation of myo-inositol monophosphates to generate myo-inositol (PubMed:[17068342](#), PubMed:[8718889](#), PubMed:[9462881](#)). Is also able to dephosphorylate scyllo-inositol-phosphate, myo-inositol 1,4-diphosphate, scyllo-inositol-1,3-diphosphate and scyllo-inositol-1,4-diphosphate (PubMed:[17068342](#)). Also dephosphorylates in vitro other sugar- phosphates including D-galactose-1-phosphate, glucose-1-phosphate, glucose-6-phosphate, fructose-1-phosphate, beta-glycerophosphate and 2'-AMP (PubMed:[17068342](#), PubMed:[8718889](#), PubMed:[9462881](#)). Responsible for the provision of inositol required for synthesis of phosphatidylinositols and polyphosphoinositides, and involved in maintaining normal brain function (PubMed:[26416544](#), PubMed:[8718889](#)). Has been implicated as the pharmacological target for lithium (Li(+)) action in brain, which is used to treat bipolar affective disorder (PubMed:[17068342](#)). Is equally active with 1D-myo-inositol 1-phosphate, 1D-myo-inositol 3-phosphate and D-galactose 1-phosphate (PubMed:[9462881](#)).

Cellular Location

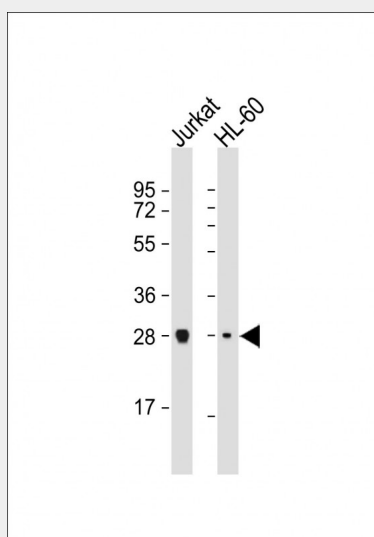
Cytoplasm.

IMPA1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

IMPA1 Antibody - Images



All lanes : Anti-IMPA1 Antibody at 1:1000-1:2000 dilution Lane 1: Jurkat whole cell lysate Lane 2: HL-60 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 30 kDa Blocking/Dilution buffer: 5% NFDN/TBST.

IMPA1 Antibody - Background

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. Has broad substrate specificity and can use myo- inositol monophosphates, myo-inositol 1,3-diphosphate, myo- inositol 1,4-diphosphate, scyllo-inositol-phosphate, D-galactose 1-phosphate, glucose-1-phosphate, glucose-6-phosphate, fructose-1- phosphate, beta-glycerophosphate, and 2'-AMP as substrates.

IMPA1 Antibody - References

McAllister G.,et al.Biochem. J. 284:749-754(1992).
Sjoeholt G.,et al.Genomics 45:113-122(1997).
Parthasarathy R.,et al.Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Nusbaum C.,et al.Nature 439:331-335(2006).