Anti-IMPA1 Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

Catalog # M014932

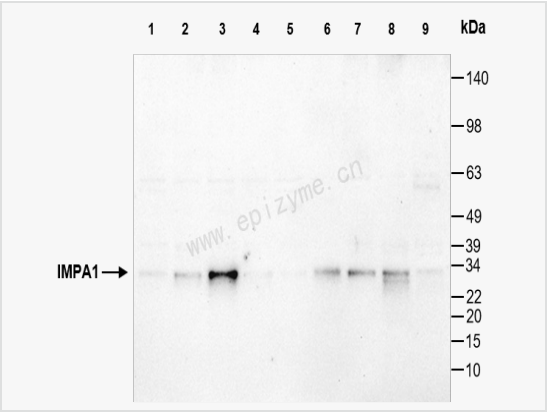
Product Information

Application	WB, IHC-P/IF (Tissue-P), ELISA
Reactivity	Human, Mouse (Cell)
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Mouse
Clonality	Monoclonal
Clone No.	52T65Q05
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human IMPA1
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-IMPA1 Mouse mAb [52T65Q05] is for research use only and not for use in diagnostic or therapeutic procedures.

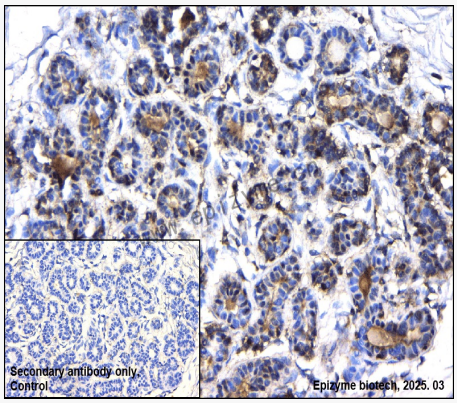
Protein Information

Synonyms	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-1(or 4)-monophosphatase 1, Lithium sensitive myo inositol monophosphatase A1, Lithium-sensitive myo-inositol monophosphatase A1.
Calculated MW	Calculated MW: 30 kDa; Observed MW: 30 kDa
Uniprot ID	P29218
Gene ID	3612
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 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, Dec 2014].
Cellular Location	Cytoplasm.

Validation Images



Western Blot - Anti-IMPA1 Mouse mAb [52T65Q05]
All lanes: M014932 at 1:1,000 dilution
Lane 1: A549 (Human lung carinoma epithelial cell) whole cell lysates
Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates
Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates
Lane 4: A431 (Human epidermoid teratoma cell line) whole cell lysates
Lane 5: Caco2 (Human colorectal adenocarcinoma epithelial cell) whole cell lysates
Lane 6: Jurkat (Human T lymphocytic leukemia cell) whole cell lysates
Lane 7: 293T (Human embryonic kidney cell) whole cell lysates
Lane 8: SCC-9 (Human tongue squamous carcinoma epithelial cell) whole cell lysates
Lane 9: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution
Predicted band size: 30 kDa
Observed band size: 30 kDa
Developed using the ECL technique (Cat. No. SQ201).



Immunohistochemistry - Anti-IMPA1 Mouse mAb [52T65Q05]
Sample: Paraformaldehyde-fixed, paraffin embedded human breast cancer tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: M014932 at 1:200 dilution
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.