Anti-IMPA1 Rabbit pAb

Purified Rabbit Polyclonal Antibody

Catalog # P107070

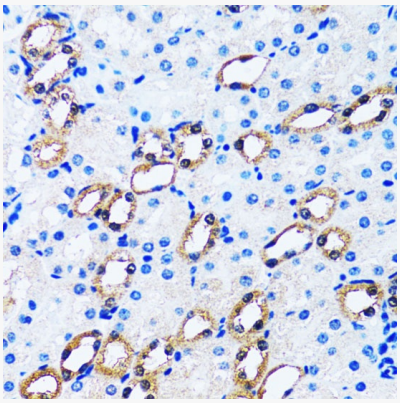
Product Information

Application	WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:500~1:2,000; IHC-P 1:50~1:200; IF 1:10~1:100
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 1-277 of human IMPA1 (NP_005527.1).
Format	Affinity purified polyclonal antibody supplied in PBS with 0.02% 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 Rabbit pAb is for research use only and not for use in diagnostic or therapeutic procedures.

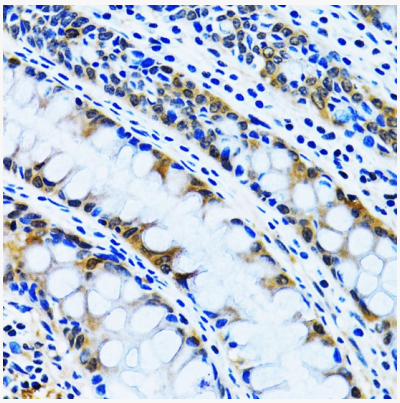
Protein Information

Synonyms	IMP; IMPA; MRT59; IMPA1.
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.

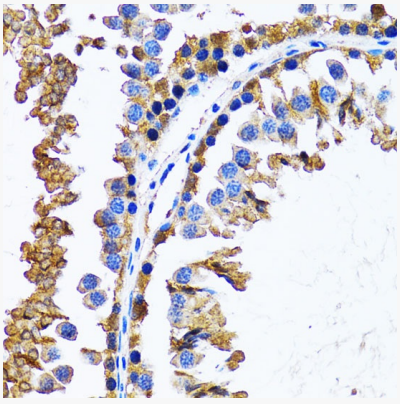
Validation Images



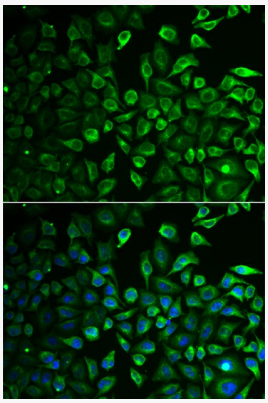
Immunohistochemistry analysis of paraffin-embedded Rat kidney using IMPA1 Rabbit pAb (P107070) at dilution of 1:100 (40× lens). Microwave antigen retrieval performed with 0.01M PBS Buffer (pH 7.2) prior to IHC staining.



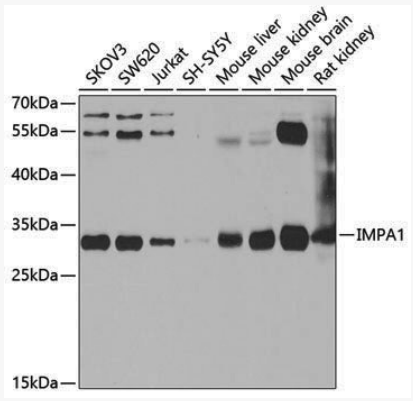
Immunohistochemistry analysis of paraffin-embedded Human colon using IMPA1 Rabbit pAb (P107070) at dilution of 1:100 (40× lens). Microwave antigen retrieval performed with 0.01M PBS Buffer (pH 7.2) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse testis using IMPA1 Rabbit pAb (P107070) at dilution of 1:100 (40× lens). Microwave antigen retrieval performed with 0.01M PBS Buffer (pH 7.2) prior to IHC staining.



Immunofluorescence analysis of A549 cells using IMPA1 Rabbit pAb (P107070). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) at 1:500 dilution. Blue: DAPI for nuclear staining.



Western blot analysis of various lysates using IMPA1 Rabbit pAb (P107070) at 1:1,000 dilution.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (LF102) at 1:10,000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Kit (SQ201).
Exposure time: 90s.