

# Human IMPA1/IMP1 antibody

Catalog Number: ATGA0402

## PRODUCT INFORMATION

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**Catalog number**

ATGA0402

**Clone No.**

AT2G5

**Product type**

Monoclonal Antibody

**UnitProt No.**

P29218

**NCBI Accession No.**

NP\_005527

**Alternative Names**

Inositol monophosphatase 1, IMPA, IMP, IMPase 1, Inositol monophosphatase 1

## PRODUCT SPECIFICATION

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**Antibody Host**

Mouse

**Reacts With**

Human

**Concentration**

1mg/ml (determined by BCA assay)

**Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

**Immunogen**

Recombinant human IMPA1 (1-277aa) purified from E. coli

**Isotype**

IgG1 kappa

**Purification Note**

By protein-A affinity chromatography

**Application**

ELISA, WB, ICC/IF, FACS

**Usage**

The antibody has been tested by ELISA, Western blot, ICC/IF and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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## Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

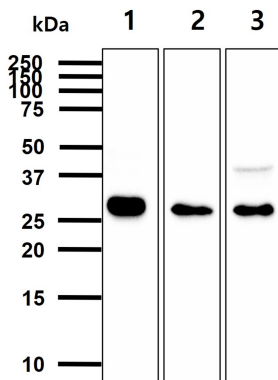
IMPA1 (inositol monophosphatase1) is responsible for the provision of inositol required for synthesis of phosphatidylinositol and polyphosphoinositides. It plays a key role in the phosphatidylinositol signaling pathway by catalyzing the hydrolysis of inositol monophosphates. This protein has been identified as the pharmacological target for lithium action in the brain.

### General References

- Ganzhorn AJ., et al. (1996) *Biochemistry*. 35(33): 10957-66.
- Parthasarathy R., et al. (1997) *Brain Res*. 778(1): 99-106.
- Ohnishi T., et al. (2007) *J Biol Chem*. 282(1): 637-46.

## DATA

### Western blot analysis (WB)



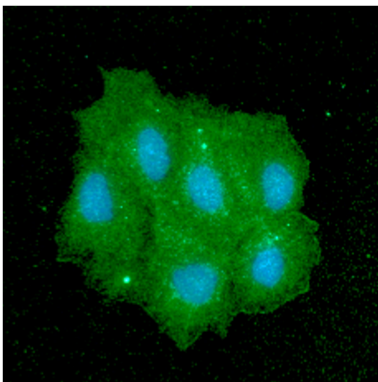
The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human IMPA1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: Jurkat cell lysate

Lane 2.: Raji cell lysate

Lane 3.: NIH/3T3 cell lysate

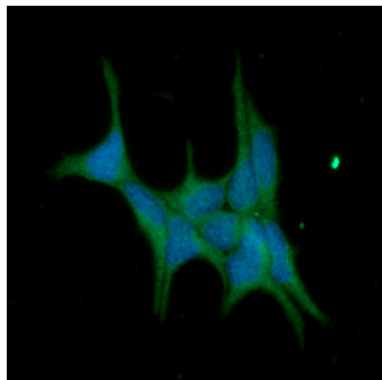
### Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of IMPA1 in Hep3B cells. The cell was stained with ATGA0402 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

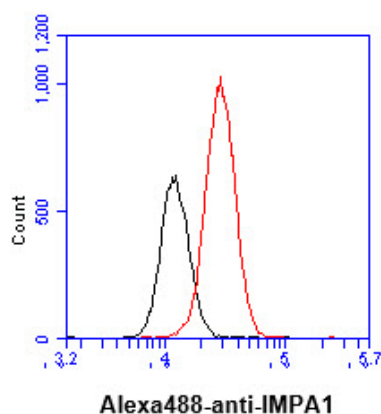
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ICC/IF analysis of IMPA1 in LNCap cells. The cell was stained with ATGA0402 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

### Flow cytometry (FACS)



Flow cytometry analysis of IMPA1 in LNCap cell line, staining at 2-5ug for  $1 \times 10^6$  cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).