

## Anti-IMPA1 antibody

|                 |   |
|-----------------|---|
| <b>Cat. No.</b> | ml224819  |
| <b>Package</b>  | 25 µl/100 µl/200 µl                                     |
| <b>Storage</b>  | -20°C, pH7.4 PBS, 0.05% NaN <sub>3</sub> , 40% Glycerol |

### Product overview

|                     |                                       |
|---------------------|---------------------------------------|
| <b>Description</b>  | Anti-IMPA1 rabbit polyclonal antibody |
| <b>Applications</b> | ELISA, WB, IHC                        |
| <b>Immunogen</b>    | Fusion protein of human IMPA1         |
| <b>Reactivity</b>   | Human, Mouse, Rat                     |
| <b>Content</b>      | 0.9 mg/ml                             |
| <b>Host species</b> | Rabbit                                |
| <b>Ig class</b>     | Immunogen-specific rabbit IgG         |
| <b>Purification</b> | Antigen affinity purification         |

### Target information

|                  |                            |
|------------------|----------------------------|
| <b>Symbol</b>    | IMPA1                      |
| <b>Full name</b> | inositol monophosphatase 1 |

**Synonyms** IMP; IMPA

**Swissprot** P29218

### Target 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 hydrolysis 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.

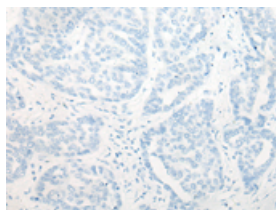
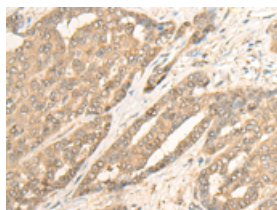
## Applications

### Immunohistochemistry

Predicted cell location: Cytoplasm and Nucleus

Positive control: Human liver cancer

Recommended dilution: 25-100

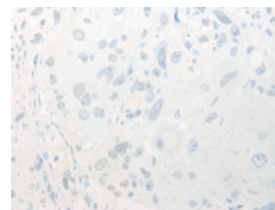
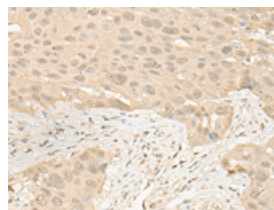


The image on the left is immunohistochemistry of paraffin-embedded Human liver cancer tissue using ml224819(IMP1 Antibody) at dilution 1/25, on the right is treated with fusion protein. (Original magnification:  $\times 200$ )

Predicted cell location: Cytoplasm and Nucleus

Positive control: Human esophagus cancer

Recommended dilution: 25-100



The image on the left is immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using ml224819(IMP1 Antibody) at dilution 1/25, on the right is treated with fusion protein. (Original magnification:  $\times 200$ )

### Western blotting

Predicted band size: 30 kDa

Positive control: Human cerebrum tissue lysate

Recommended dilution: 500-2000

Gel: 8%SDS-PAGE

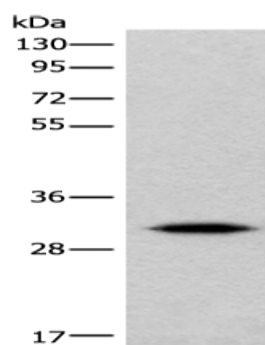
Lysate: 40  $\mu$ g

Lane: Human cerebrum tissue lysate

Primary antibody: ml224819(IMP1 Antibody) at dilution 1/360

Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution

Exposure time: 5 seconds



#### ELISA

Recommended dilution: 5000-10000

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