

## Product datasheet for **TA365771S**

### IMPA1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 500-2000 WB positive control: Human cerebrum tissue and Mouse brain tissue lysates IHC: 25-100 Positive control: Human esophagus cancer Predicted cell location: Cytoplasm and Nucleus
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Fusion protein of human IMPA1
Formulation:	pH7.4 PBS, 0.05% NaN <sub>3</sub> , 40% Glycerol
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C.
Stability:	1 year
Predicted Protein Size:	30 kDa
Gene Name:	inositol monophosphatase 1
Database Link:	<a href="#">Entrez Gene 3612 Human P29218</a>



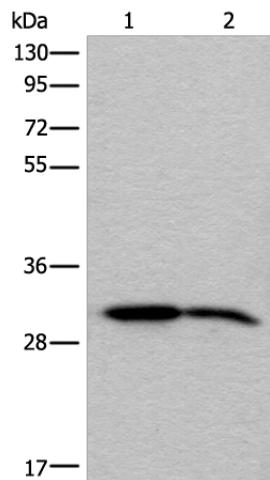
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**Background:**

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.

**Synonyms:**

IMP; IMPA; IMPase

**Product images:**

Gel: 8%SDS-PAGE

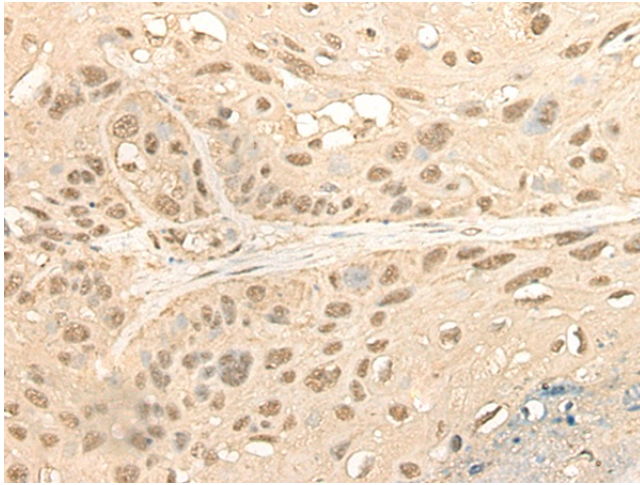
Lysate: 40 µg

Lane 1-2: Human cerebrum tissue and Mouse brain tissue lysates

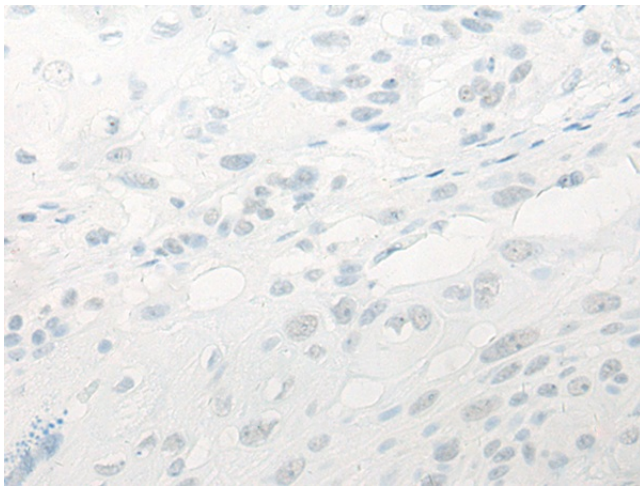
Primary antibody: [TA365771] (IMPA1 Antibody) at dilution 1/300

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

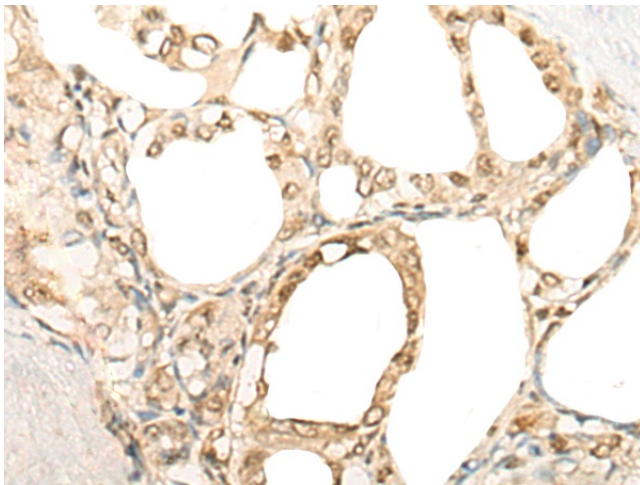
Exposure time: 5 seconds



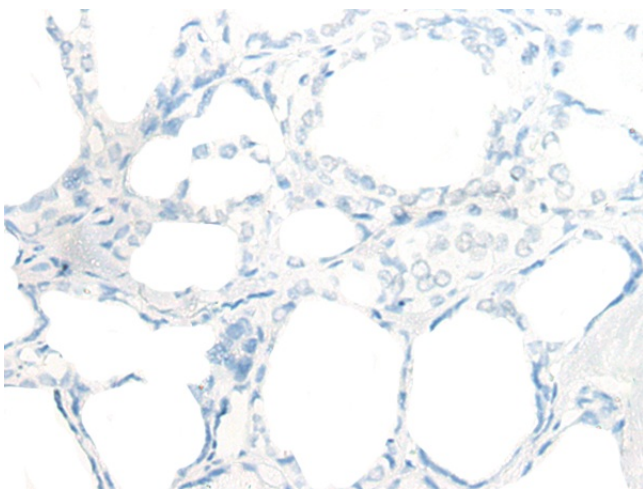
Immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using [TA365771] (IMPA1 Antibody) at dilution 1/20 (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using [TA365771] (IMPA1 Antibody) at dilution 1/20, treated with fusion protein. (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using [TA365771] (IMPA1 Antibody) at dilution 1/20 (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using [TA365771] (IMPA1 Antibody) at dilution 1/20, treated with fusion protein. (Original magnification: ×200)