

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IMPA1/IMP1 Peptide in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 984604
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Synthetic peptide containing human IMPA1/IMP1 Peptide Accession # P29218
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

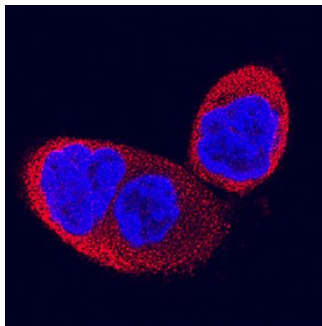
**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Immunohistochemistry</b>	5-25 µg/mL	See Below

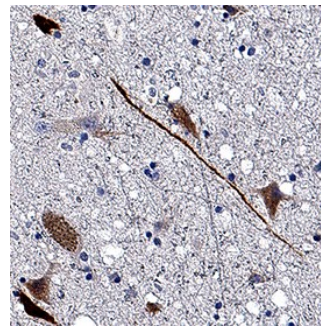
**DATA**

**Immunocytochemistry**



**IMPA1/IMP1 in HCT-116 Human Cell Line.** IMPA1/IMP1 was detected in immersion fixed HCT-116 human colorectal carcinoma cell line using Mouse Anti-Human IMPA1/IMP1 Monoclonal Antibody (Catalog # MAB9890) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

**Immunohistochemistry**



**IMPA1/IMP1 in Human Brain.** IMPA1/IMP1 was detected in immersion fixed paraffin-embedded sections of human brain using Mouse Anti-Human IMPA1/IMP1 Monoclonal Antibody (Catalog # MAB9890) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in neurons. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

IMPA-1/inositol(myo)-1(or 4)-monophosphatase 1 is a ubiquitous enzyme with broad specificity, which is responsible for the provision of inositol required for synthesis of phosphatidylinositol and polyphosphoinositides. IMPA-1 dephosphorylates myo-inositol monophosphate to modulate intracellular signal transduction. IMPA-1 forms homodimers, and is abundantly expressed in brain. The magnesium-dependent phosphatase activity is inhibited by lithium, thereby depressing myo-inositol production, which may explain the anti-depressive and anti-manic effects of lithium therapy in bipolar disorder.