

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects liver, bone and kidney Alkaline Phosphatase/ALPL from human tissue (2).
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # B4-78
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Human liver, bone and kidney-derived Alkaline Phosphatase/ALPL
<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.

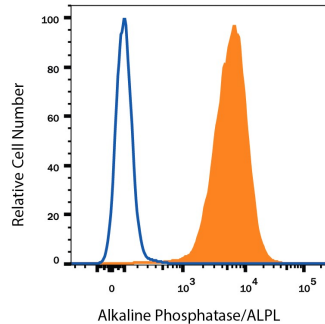
## APPLICATIONS

**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.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

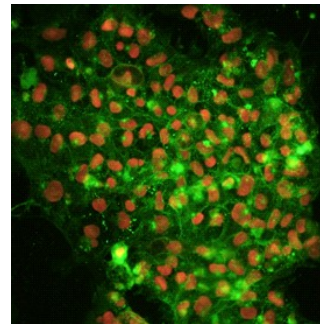
## DATA

### Flow Cytometry



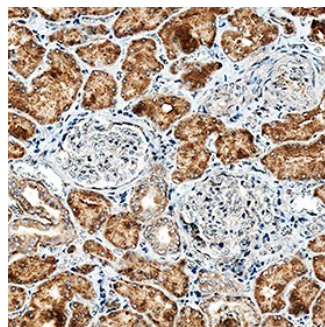
**Detection of Alkaline Phosphatase/ALPL in BG01V Human Cells by Flow Cytometry.** BG01V human embryonic stem cells was stained with Mouse Anti-Human Alkaline Phosphatase/ALPL Monoclonal Antibody (Catalog # MAB1448, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B).

### Immunocytochemistry



**Alkaline Phosphatase and Oct-3/4 in BG01V Human Stem Cells.** Alkaline Phosphatase/ALPL and Oct-3/4 were detected in human BG01V embryonic stem cells using 10 µg/mL Mouse Anti-Human Alkaline Phosphatase/ALPL Monoclonal Antibody (Catalog # MAB1448) and 10 µg/mL Human Oct-3/4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1759). Cells were incubated with primary antibodies for 3 hours at room temperature. Cells were stained for Alkaline Phosphatase/ALPL using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (pseudo-stained green; Catalog # NL007), and stained for Oct-3/4 using the NorthernLights 637-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL002). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Immunohistochemistry



**Alkaline Phosphatase/ALPL in Human Kidney.** Alkaline Phosphatase/ALPL was detected in immersion fixed paraffin-embedded sections of human kidney using Mouse Anti-Human Alkaline Phosphatase/ALPL Monoclonal Antibody (Catalog # MAB1448) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in epithelial cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

## 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

The liver, bone and kidney Alkaline Phosphatase, also known as tissue non-specific Alkaline Phosphatase, is a glycosyl phosphatidylinositol (GPI) anchored protein. Human liver/bone/kidney Alkaline Phosphatase shares 90% amino acid sequence homology with the mouse enzyme.

## References:

1. Lawson, G.M. *et al.* (1985) Clin. Chem. **31**:381.
2. Gronthos, S. *et al.* (1999) J. Bone Miner. Res. **14**:47.
3. Dorheim, M.A. *et al.* (1993) J. Cell Physiol. **154**:317.