

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Alkaline Phosphatase/ALPL in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 60% cross-reactivity with recombinant human ALPL is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Alkaline Phosphatase/ALPL Phe18-Gly503 Accession # P09242
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

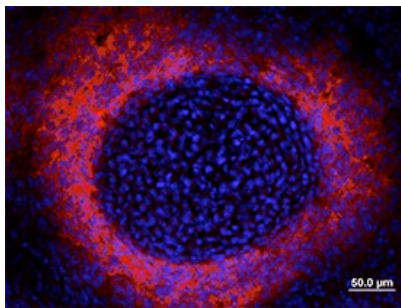
APPLICATIONS

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
Western Blot	0.1 µg/mL	Recombinant Mouse Alkaline Phosphatase/ALPL (Catalog # 2910-AP)
Immunohistochemistry	5-15 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Mouse Alkaline Phosphatase/ALPL (Catalog # 2910-AP), see our available Western blot detection antibodies

DATA

Immunohistochemistry



Alkaline Phosphatase/ALPL in Mouse Embryo. Alkaline Phosphatase/ALPL was detected in immersion fixed frozen sections of mouse embryonic (E13.5) developing vertebra using Goat Anti-Mouse Alkaline Phosphatase/ALPL Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2910) at 2 µg/mL overnight at 4 °C. Tissue was stained red and counterstained with DAPI (blue). *Image courtesy of Paul J. Simmons, Ph.D., Director, Center for Stem Cell Research, The University of Texas Health Science Center at Houston, Houston, Texas, USA. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).*

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

BACKGROUND

Several distinct genes encode alkaline phosphatases (APs) in mice with different tissue-specific expression patterns. The *Alpl* gene, also known as *Akp2*, encodes the liver/bone/kidney isozyme, also known as the tissue-nonspecific AP (TNAP) (1). The *Alpl* gene is a key regulator of bone mineralization in mice (2). A variety of mutations in the human ALPL gene leads to different forms of hypophosphatasia, characterized by poorly mineralized cartilage and bones (3). The native ALPL is a glycosylated homodimer attached to the membrane through a GPI-anchor. The C-terminal pro peptide (residues 504 to 524) is not present in the mature form.

References:

1. Terao, M. and B. Mintz (1987) Proc. Natl. Acad. Sci. USA **84**:7051.
2. Hessele, L. *et al.* (2002) Proc. Natl. Acad. Sci. USA **99**:9445.
3. Di Mauro, S. *et al.* (2002) J. Bone Miner. Res. **17**:1383.