

# Recombinant Mouse Alkaline phosphatase,tissue-nonspecific isozyme/ALPL Protein

Catalog No.: RP01999 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
mouse	11647	P09242

### Tags

C-6His

### Synonyms

Alpl; Akp-2; Akp2;Alkaline phosphatase; tissue-nonspecific isozyme; AP-TNAP; TNAP; TNSALP; EC:3.1.3.1; Alkaline phosphatase 2; Alkaline phosphatase liver/bone/kidney isozyme; Phosphoamidase; Phosphocreatine phosphatase; EC:3.9.1.1

## Product Information

Source	Purification
HEK293 cells	≥ 90 % as determined by SDS-PAGE.

Calculated MW	Observed MW
54.26 KDa	66 -75kDa

### Endotoxin

< 0.01 EU/μg of the protein by LAL method

### Formulation

Lyophilized from a 0.2 μm filtered solution of 20mM HEPES, 150mM NaCl, 2mM MgSO<sub>4</sub>, 0.1mM ZnCl<sub>2</sub>,pH 7.5.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

 | 400-999-6126

## 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). The Alpl gene is a key regulator of bone mineralization in mice. A variety of mutations in the human ALPL gene leads to different forms of hypophosphatasia, characterized by poorly mineralized cartilage and bones. The native ALPL is a glycosylated homodimer attached to the membrane through a GPI-anchor.

## Basic Information

### Description

Recombinant Mouse Alkaline phosphatase,tissue-nonspecific isozyme/ALPL Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Phe18-Ala500) of Mouse Alkaline phosphatase,tissue-nonspecific isozyme/ALPL (Accession #NP\_001274101.1) fused with His at the C-terminus.

### Bio-Activity

Measured by its ability to cleave a fluorogenic substrate, 4-Methylumbelliferyl phosphate (4-MUP). The specific activity is >51590.2 pmol/min/μg, as measured under the described conditions.

### Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

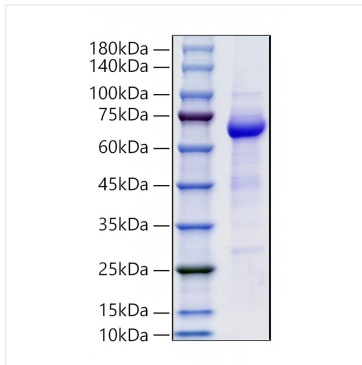
### Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

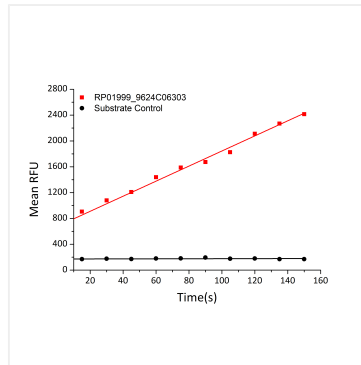


## Validation Data

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Recombinant Mouse Alkaline phosphatase, tissue-nonspecific isozyme/ALPL Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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