

Recombinant Human Alkaline phosphatase/tissue-nonspecific isozyme/ALPL Protein

Catalog No.: RP01989

Sequence Information

Species	Gene ID
Human	249
Swiss Prot	Tags
P05186	C-6His

Synonyms

ALPL, Alkaline phosphatase, tissue-nonspecific isozyme, Alkaline phosphatase liver/bone/kidney isozyme,

Product Information

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

Calculated MW Observed MW

54.04 kDa 60-75 kDa

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.2 μm filtered solution of 20mM HEPES, 150mM NaCl, 2mM MgSO₄, 0.1mM ZnCl₂, 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.

Background

Four distinct genes encode alkaline phosphatases (APs) in humans. The ALPL gene encodes the liver/bone/kidney isozyme, also known as the tissue-nonspecific AP (TNAP). In comparison, ALPI, ALPP and ALPPL2 encode intestinal, placental and placental-like or germ cell APs, respectively. The serum levels of human APs are useful tumor markers. There are many mutations in the ALPL gene, leading 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 Human Alkaline phosphatase/tissue-nonspecific isozyme/ALPL Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu18-Ala500) of Human Alkaline phosphatase /tissue-nonspecific isozyme/ALPL (Accession #NP_000469.3) fused with His tag at the C-terminus.

Activity

Measured by its ability to cleave a fluorogenic substrate, 4-Methylumbelliferyl phosphate (4-MUP). The specific activity is >29519.5 pmol/min/μg, as measured under the described conditions.

Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

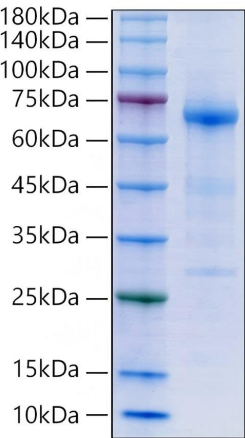
Operational Notes

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

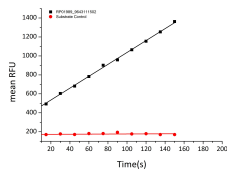
Contact

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Validation Data



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



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