



# Recombinant Human ALPL (C-6His)

<b>Catalog #</b>	EPT087
<b>Expression Host</b>	Human Cells
<b>DESCRIPTION</b>	Recombinant Human Alkaline Phosphatase, Tissue-Nonspecific Isozyme is produced by our Mammalian expression system and the target gene encoding Leu18-Ser502 is expressed with a 6His tag at the C-terminus.
<b>Accession</b>	P05186
<b>Synonyms</b>	Alkaline Phosphatase; Tissue-Nonspecific Isozyme; AP-TNAP; TNSALP; Alkaline Phosphatase Liver/Bone/Kidney Isozyme; ALPL
<b>Mol Mass</b>	54.4 KDa
<b>AP Mol Mass</b>	65-90 KDa, reducing conditions
<b>Purity</b>	Greater than 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	Less than 0.1 ng/μg (1 EU/μg) as determined by LAL test.
<b>FORMULATION</b>	Supplied as a 0.2 μ m filtered solution of 20mM





Tris-HCl,1mM                      DTT,1mM                      EDTA,500mM

NaCl,0.1%Triton X-100,pH 8.0.

## RECONSTITUTION

## SHIPPING

The product is shipped on dry ice/polar packs.

Upon receipt, store it immediately at the temperature listed below.

## STORAGE

Store at  $\leq -70^{\circ}\text{C}$ , stable for 6 months after receipt.

Store at  $\leq -70^{\circ}\text{C}$ , stable for 3 months under sterile conditions after opening.

Please minimize freeze-thaw cycles.

## BACKGROUND

Alkaline Phosphatase, Tissue-Nonspecific Isozyme (ALPL) is a cell membrane protein which belongs to the alkaline phosphatase family. There are at least four distinct but related alkaline phosphatases in humans: intestinal AP (IAP), placental AP(PLAP), germ cell AP (GCAP) and their genes are clustered on chromosome 2, tissue-nonspecific isozyme (TNAP) which gene is located on chromosome 1. Alkaline phosphatases (APs) are dimeric enzymes, it catalyze the hydrolysis of phosphomonoesters with release of inorganic phosphate. The native ALPL is a glycosylated homodimer attached to the membrane through a





GPI-anchor. This isozyme may play a role in skeletal mineralization. Mutations in ALPL gene have been linked directly to different forms of hypophosphatasia, characterized by poorly mineralized cartilage and bones, and this disorder can vary depending on the specific mutation since this determines age of onset and severity of symptoms.

## **SDS-PAGE**

