

## Recombinant Human Alkaline Phosphatase/ALPL Protein (His Tag)

Catalog No. PKSH032057

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

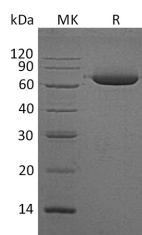
### Description

<b>Synonyms</b>	Alkaline Phosphatase;Tissue-Nonspecific Isozyme;AP-TNAP;TNSALP;Alkaline Phosphatase Liver/Bone/Kidney Isozyme;ALPL;HOPS;TNAP
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Leu18-Ser502
<b>Accession</b>	P05186
<b>Calculated Molecular Weight</b>	54.5 kDa
<b>Observed molecular weight</b>	65-90 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20mM Tris-HCl,1mM DTT,1mM EDTA,500mM NaCl,0.1% Triton X-100,pH 8.0.
<b>Reconstitution</b>	Not Applicable

### Data



> 95 % as determined by reducing SDS-PAGE.

### 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

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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.