

Active Recombinant Human ALPL Protein, His-tagged

Cat. No. ALPL-327H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ALPL Protein (Leu18-Ser502) is produced by NS0-derived expression system. This protein is fused with a His tag at the C-terminal.
Species	Human
Source	Mammalian Cells
ProteinLength	18-502 a.a.
Description	Four distinct genes encode alkaline phosphatases (APs) in humans (1). 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 (2). There are many mutations in the ALPL gene, leading 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 503 to 524) is not present in the mature form.
Predicted N Terminal	Leu18
Form	Supplied as a 0.2 µm filtered solution in HEPES, NaCl, MgCl ₂ and ZnCl ₂ .
Bio-activity	Measured by its ability to cleave a fluorogenic substrate, 4-Methylumbelliferyl

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phosphate (4-MUP). The specific activity is >30,000 pmol/min/g.

Molecular Mass	54 kDa
Endotoxin	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 centigrade as supplied. 3 months, -20 to -70 centigrade under sterile conditions after opening.

GENE INFORMATION

Gene Name	ALPL alkaline phosphatase, liver/bone/kidney [Homo sapiens]
Official Symbol	ALPL
Synonyms	Akp2; ALPL; APTNAP; AP-TNAP; EC 3.1.3.1; FLJ40094; FLJ93059; MGC161443; tissue-nonspecific ALP; TNAP; TNSALP; TNSALPMGC167935;
Gene ID	249
mRNA Refseq	NM_000478
Protein Refseq	NP_000469
MIM	171760
UniProt ID	P05186

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