

## Product datasheet for **TP724588**

### ALPL (18-501, His-Tag) Human Recombinant Protein

#### Product data:

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant human Alkaline Phosphatase/ALPL protein
<b>Species:</b>	Human
<b>Expression Host:</b>	HEK293
<b>Expression cDNA Clone or AA Sequence:</b>	LVPEKEK DPKYWRDQAQ ETLKYALELQ KLNTNVAKNV IMFLGDGMGV STVTAARILK GQLHHNPGEETRLEMDKFPF VALSKTYNTN AQVPDSAGTA TAYLCGVKAN EGTVGVSAAT ERSRCNTTQG NEVTSILRWA KDAGKSVGIV TTTRVNHATP SAAYAH SADR DWYSDNEMPP EALSQGCKDI AYQLMHNIRD IDVIMGGGRK YMYPKNKTDV EYESDEKARG TRLDGLDLVD TWKSFKPRYK HSHFIWN RTE LLTLDPHNVD YLLGLFEPGD MQYELNRNNV TDPSLSEM VV VAIQLRKNP KGFFLLVEGG RIDHGHHEGK AKQALHEAVE MDRAIGQAGS LTSS EDTLTV VTADHSHVFT FGGYTPRGNS IFGLAPMLSD TDKKPFTAIL YGNGPGYKVV GGERENVSMV DYAHNNYQQAQ SAVPLRHETH GGEDVAVFSK GPMAHLLHGV HEQNYVPHVM AYAACIGANL GHCAPAS
<b>Tag:</b>	His-Tag
<b>Predicted MW:</b>	54.3kDa (493aa)
<b>Concentration:</b>	1mg/ml (determined by Absorbance at 280nm)
<b>Purity:</b>	> 95% by SDS-PAGE
<b>Buffer:</b>	Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol
<b>Bioactivity:</b>	Specific activity is > 40,000 pmol/min/ug and is defined as the amount of enzyme that hydrolyze 1pmole of 4-Methylumbelliferyl phosphate to phosphate and 4-Methylumbelliferone per minute at pH 8.8 at 37C.
<b>Endotoxin:</b>	< 1 EU per 1ug of protein (determined by LAL method)
<b>Applications:</b>	SDS-PAGE, Enzyme Activity
<b>Storage:</b>	Can be stored at +2°C to +8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.
<b>RefSeq:</b>	<a href="#">NP_000469.3</a>



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**Summary:**

ALPL, also known as alkaline phosphatase, tissue-nonspecific isozyme, is one of alkaline phosphatases. Alkaline phosphatase is metabolizes various phosphate compounds and plays a key role in skeletal mineralization and adaptive thermogenesis. There are at least four distinct but related alkaline phosphatases: intestinal, placental, placental-like, and liver/bone/kidney (tissue-nonspecific). Expression of this protein is nonspecific to a single tissue and is especially abundant in bone, liver, and kidney. It plays an essential role in skeletal and dental mineralization via its ability to hydrolyze extracellular diphosphate, a potent mineralization inhibitor, to phosphate. It thereby promotes hydroxyapatite crystal formation and increases inorganic phosphate concentration. Recombinant human Alkaline Phosphatase/ALPL, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.