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Alkaline Phosphatase Recombinant Protein

Cat. No.: 91-503

Alkaline Phosphatase Recombinant Protein

Specifications

SPECIES:	Human
SOURCE SPECIES:	Human Cells
SEQUENCE:	Leu18-Ser502
FUSION TAG:	C-6 His tag
TESTED APPLICATIONS:	
APPLICATIONS:	This recombinant protein can be used for biological assays. For research use only.
PREDICTED MOLECULAR WEIGHT:	54.5 kD

Properties

PURITY:	Greater than 95% as determined by reducing SDS-PAGE. Endotoxin level less than 0.1 ng/ug (1 IEU/ug) as determined by LAL test.
PHYSICAL STATE:	Liquid
BUFFER:	Supplied as a 0.2 um filtered solution of 20mM HEPES, 150mM NaCl, 2mM MgSO4, 0.1mM ZnCl2, pH 7.5. It is not recommended to reconstitute to a concentration less than 100 ug/ml.

STORAGE CONDITIONS:	Store at -20˚C, stable for 6 months after receipt. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Additional Info

OFFICIAL SYMBOL:	ALPL
ALTERNATE NAMES:	Alkaline Phosphatase, Tissue-Nonspecific Isozyme, AP-TNAP, TNSALP, Alkaline Phosphatase Liver/Bone/Kidney Isozyme, ALPL
ACCESSION NO.:	P05186
PROTEIN GI NO.:	578798860
GENE ID:	249

Background and References

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.