

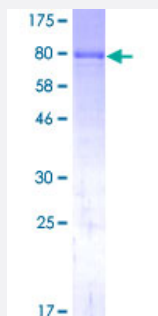
Full-Length

ALPL (Human) Recombinant Protein (P01)

Catalog # H00000249-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human ALPL full-length ORF (NP_000469.3, 1 a.a. - 524 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MISPFVLVAIGTCLTNSLVPEKEKDPKYWRDQAQETLKYALELQKLNTNVAKNVIMFLGDGMGVST
VTAARILKGQLHHNPGEETRLEMDKFPFVALSKTYNTNAQVPDSAGTATAYLCGVKANEGTVGVS
AATERSRCNTTQGNEVTSILRWAKDAGKSVGVTTRVNHATPSAAYAHSADRDWYSDNEMPPE
ALSQGCKDIAYQLMHNIRDIDVIMGGGRKYMYPKNKTDVEYESDEKARGTRLDGLDLVDTWKSFK
PRYKHSFIMNRTELLTLDPHNVDYLLGLFEPGDMQYELNRNNVTDPSLSEMVVVAIQLRKNPKG
FFLLVEGGRIDHGHHEGKAKQALHEAVEMDRAIGQAGSLTSSSEDTLTVVTADHSHVFTFGGYTPR
GNSIFGLAPMLSDTDKKPFTAILYGNPGYKVVGGERENVSMVDYAHNNYQAQSAVPLRHETHG
GEDVAVFSKGPMALLHGVHEQNYVPHVMAYAACIGANLGHCAPASSAGSLAAGPLLLALALYP
LSVLF

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

83.7

Interspecies Antigen Sequence

Mouse (91)

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — ALPL

Entrez GeneID	249
GeneBank Accession#	NM_000478.3
Protein Accession#	NP_000469.3
Gene Name	ALPL
Gene Alias	AP-TNAP, FLJ40094, FLJ93059, HOPS, MGC161443, MGC167935, TNAP, TNSALP
Gene Description	alkaline phosphatase, liver/bone/kidney
Omim ID	146300 171760 241500 241510
Gene Ontology	Hyperlink

Gene Summary

There are at least four distinct but related alkaline phosphatases: intestinal, placental, placental-like, and liver/bone/kidney (tissue non-specific). The first three are located together on chromosome 2, while the tissue non-specific form is located on chromosome 1. The product of this gene is a membrane bound glycosylated enzyme that is not expressed in any particular tissue and is, therefore, referred to as the tissue-nonspecific form of the enzyme. The exact physiological function of the alkaline phosphatases is not known. A proposed function of this form of the enzyme is matrix mineralization; however, mice that lack a functional form of this enzyme show normal skeletal development. This enzyme has been linked directly to hypophosphatasia, a disorder that is characterized by hypercalcemia and includes skeletal defects. The character of this disorder can vary, however, depending on the specific mutation since this determines age of onset and severity of symptoms. Alternatively spliced transcript variants, which encode the same protein, have been identified for this gene. [provided by RefSeq]

Other Designations

OTTHUMP00000002971|OTTHUMP00000002972|alkaline phosphatase, tissue-nonspecific isozyme|alkaline phosphomonoesterase|glycerophosphatase|liver/bone/kidney-type alkaline phosphatase|tissue non-specific alkaline phosphatase|tissue-nonspecific ALP

Pathway

- [Folate biosynthesis](#)
- [gamma-Hexachlorocyclohexane degradation](#)
- [Metabolic pathways](#)

Disease

- [Alzheimer disease](#)
- [Cardiovascular Diseases](#)
- [Chondrocalcinosis](#)
- [Diabetes Complications](#)
- [Fractures](#)
- [Genetic Predisposition to Disease](#)
- [Hypertension](#)
- [Hypophosphatasia](#)
- [Kidney Failure](#)
- [Metabolic Syndrome X](#)

- [Neoplasms](#)
- [Osteoporosis](#)
- [Spondylitis](#)
- [Tobacco Use Disorder](#)