

Recombinant Human ALPL, GST-tagged

Cat. No. ALPL-9597H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human ALPL protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	23-330a.a.
Description	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 have been described.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing

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cycles.

Storage Buffer

1M PBS (58mM Na₂HPO₄, 17mM NaH₂PO₄, 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

GENE INFORMATION

Gene Name

ALPL alkaline phosphatase, liver/bone/kidney [Homo sapiens]

Official Symbol

ALPL

Synonyms

ALPL; alkaline phosphatase, liver/bone/kidney; HOPS; alkaline phosphatase, tissue-nonspecific isozyme; TNSALP; glycerophosphatase; tissue-nonspecific ALP; alkaline phosphomonoesterase; liver/bone/kidney-type alkaline phosphatase; alkaline phosphatase liver/bone/kidney isozyme; TNAP; APTNAP; AP-TNAP; FLJ40094; FLJ93059; MGC161443; MGC167935;

Gene ID

249

mRNA Refseq

NM_000478

Protein Refseq

NP_000469

MIM

171760

UniProt ID

P05186

Chromosome Location

1p36.12

Pathway

Endochondral Ossification, organism-specific biosystem; Folate biosynthesis,

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organism-specific biosystem; Folate biosynthesis, conserved biosystem; Metabolic pathways, organism-specific biosystem; TNF-alpha/NF-kB Signaling Pathway, organism-specific biosystem;

Function

alkaline phosphatase activity; hydrolase activity; metal ion binding;

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