

Recombinant Human ALPL therapeutic protein (Asfotase alfa)

Cat. No. ALPL-P04H Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant Human TNSALP therapeutic protein is a fusion protein incorporating the catalytic domain of human tissue non-specific alkaline phosphatase (TNSALP; ALPL) and a bone-targeting peptide. It is designed to address the underlying cause of HPP by normalizing the genetically defective metabolic process, and preventing or reversing the severe and potentially life-threatening complications of life-long dysregulated mineral metabolism.

Species

Human

Description

This gene encodes a member of the alkaline phosphatase family of proteins. 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. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature enzyme. This enzyme may play a role in bone mineralization. Mutations in this gene have been linked to hypophosphatasia, a disorder that is characterized by hypercalcemia and skeletal defects.

Endotoxin

< 0.1 EU per µg of the protein

Purity

>95%

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Alias ALPL; HOPS; TNSALP; TNAP; APTNAP; AP-TNAP; Asfotase alfa

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

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Function

alkaline phosphatase activity; hydrolase activity; metal ion binding;

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