

32-7504: Recombinant Human Alkaline Phosphatase/ALPL (C-6His)(Discontinued)

Gene : ALPL
Gene ID : 249
Uniprot ID : P05186

Description

Source: Human Cells.
MW :54.5kD.

Recombinant Human Alkaline Phosphatase is produced by our Mammalian expression system and the target gene encoding Leu18-Ser502 is expressed with a 6His tag at the C-terminus. 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.

Product Info

Amount : 10 µg / 50 µg
Content : Supplied as a 0.2 µm filtered solution of 20mM HEPES, 150mM NaCl, 2mM MgSO₄, 0.1mM ZnCl₂, pH 7.5.
Storage condition : Store at -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.
Amino Acid : LVPEKEKDPKYWRDQAQETLKYALELQKLNTNVAKNVIMFLGDGMGVSTVTAARILKQLHHNPGEETRLEMD KFPFVALSKTYNTNAQVPDSAGTATAYLCGVKANEGTVGVSAAATERSRCNTTQGNEVTSILRWAKDAGKSVGI VTTTRVNHATPSAAYAHSAARDWYSDNEMPPEALSQGCKDIAYQLMHNIRDIDVIMGGGRKYMYPKNKTDVE YESDEKARGTRLDGLDLVDTWKSFKPRYKHSFIWNRTTELLTDPHNVDYLLGLFEPGDMQYELNRNNVTDPS LSEMVVVAIQILRKNPKGFLLVEGGRIDHGHHEGKAKQALHEAVEMDRAIGQAGSLTSSSEDTLTVVTADHSHV FTFGGYTPRGNSIFGLAPMLSDDTKKPFRTAILYGNPGYKVVGGGERENVSMVDYAHNNYQAQSAVPLRHETHG GEDVAVFSKGPMAHLLHGVHEQNYVPHVMAYAACIGANLGHCAPASSVDHHHHHH

Application Note

b>Endotoxin : Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.

Biological Activity : Special Activity: 66 U/mg based on using p-nitrophenyl phosphate (pNPP) as a phosphatase substrate which turns yellow (λ_{max}= 405 nm) when dephosphorylated by ALP. At pH10.4, 37°C, 1 Unit is defined as cleaving 1.0 µmol p-nitrophenyl phosphate (pNPP) per minute.