

Human Alkaline Phosphatase (Placental type) /ALPP Protein

Cat. No. APE-HM102

Description

Source	Recombinant Human Alkaline Phosphatase (Placental type) /ALPP Protein is expressed from HEK293 with His tag at the C-Terminus.
	It contains Ile23-Asp506.
Accession	P05187
Molecular Weight	The protein has a predicted MW of 53.8 kDa. Due to glycosylation, the protein migrates to 63-68 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1 EU per ug by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE
	> 95% as determined by HPLC

Formulation and Storage

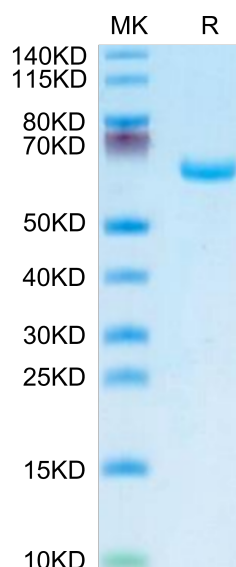
Formulation	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Alkaline phosphatase can be considered "our favorite enzyme" for reasons apparent to those who diagnose and treat metabolic bone diseases or who study skeletal biology. Few might know, however, that alkaline phosphatase likely represents the most frequently assayed enzyme in all of medicine. Elevated activity in the circulation is universally recognized as a marker for skeletal or hepatobiliary disease.

Assay Data

Bis-Tris PAGE



Human Alkaline Phosphatase (Placental type) on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

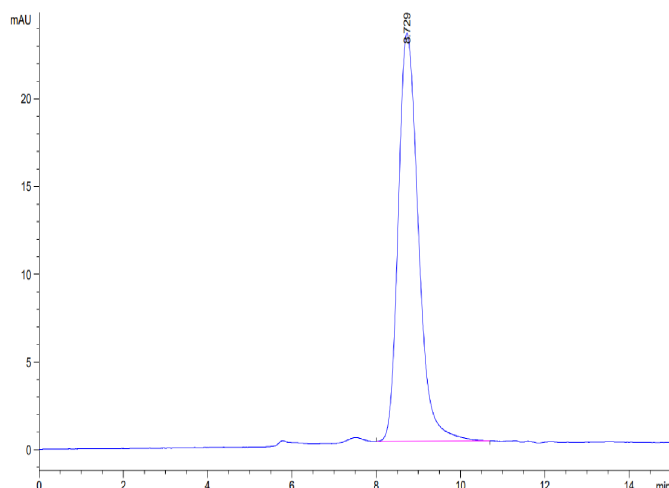
SEC-HPLC

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KACATUS

Assay Data

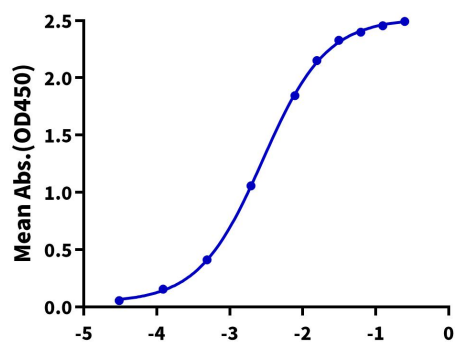


The purity of Human Alkaline Phosphatase (Placental type) is greater than 95% as determined by SEC-HPLC.

ELISA Data

Human Alkaline Phosphatase, His Tag ELISA

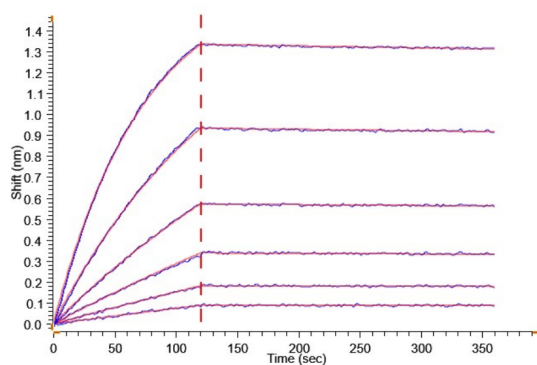
0.1µg Human Alkaline Phosphatase, His Tag Per Well



Immobilized Human Alkaline Phosphatase (Placental type), His Tag at 1µg/ml (100 µl/Well) on the plate. Dose response curve for Anti-Alkaline Phosphatase Antibody, hFc Tag with the EC50 of 2.8ng/ml determined by ELISA.

Log Anti-Alkaline Phosphatase Antibody, hFc Tag Conc.(µg/ml)

BLI Data



Loaded Anti-Alkaline Phosphatase Antibody, hFc Tag on ProA-Biosensor can bind Human ALPP, His Tag with an affinity constant of 0.56 nM as determined in BLI assay (Gator® Prime).

Bioactivity Data

Measured by its ability to cleave a fluorogenic substrate, 4-Methylumbelliferyl phosphate (4-MUP). The specific activity is > 12000 pmol/min/µg.