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Cynomolgus ALPL Protein; His Tag

Product Information

Product Name	Cynomolgus ALPL Protein; His Tag
Storage temp.	Store at ≤ -70℃, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	**GM-84642RP-100 / 100 μg** **GM-84642RP-1000 / 1 mg**

Protein Information

Alternative Names	AP-TNAP, APTNAP, HOPS, HPPA, HPPC, HPPI, HPPO, TNALP, TNAP, TNS-ALP, TNSALP
Source	Cynomolgus ALPL Protein; His Tag (GM-84642RP) is expressed from human 293 cells (HEK-293). It contains AA Leu18-Ser502 (Accession # G7NUV3). This protein carries a His tag at the C-terminus.
Purity	> 95% as determined by SDS-PAGE
Endotoxin	< 1 EU/μg, determined by LAL gel clotting assay
Predicted Mol Mass	55.3 KDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.4.
Description	Tissue non-specific alkaline phosphatase (TNAP) is an isoenzyme of alkaline phosphatase encoded by the ALPL gene in the human body. TNAP is mainly present in tissues such as bone, liver, and kidneys. It plays a crucial role in bone by participating in the metabolism of phosphates and the mineralization process of the skeleton. Additionally, TNAP also plays a role in fetal development and growth. In clinical practice, the activity level of TNAP is also used as a diagnostic marker for bone diseases and liver diseases. Research also indicates that TNAP may play an important role in human diseases, including bone disorders such as osteoporosis and rickets, as well as other conditions such as cancer and inflammatory diseases. Tissue non-specific alkaline phosphatase (TNAP) is found in many different organs, but abundant in the skeletal, hepatic and renal tissues. TNAP is a homodimeric protein and in its structure, in addition to one phosphate anion, each monomer is composed of three metallic ions (one Mg^{2+} and two Zn^{2+} cations). Each subunit contains an extended central core β-beach with α-helices, while an extended N-terminal α-helix has a “crown domain”. The crown domain can be characterised as a loose interfacial loop with amino acid residues involved in stabilizing the binding of non-competitive inhibitors to the enzyme.

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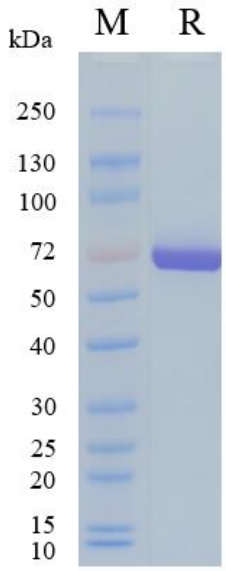
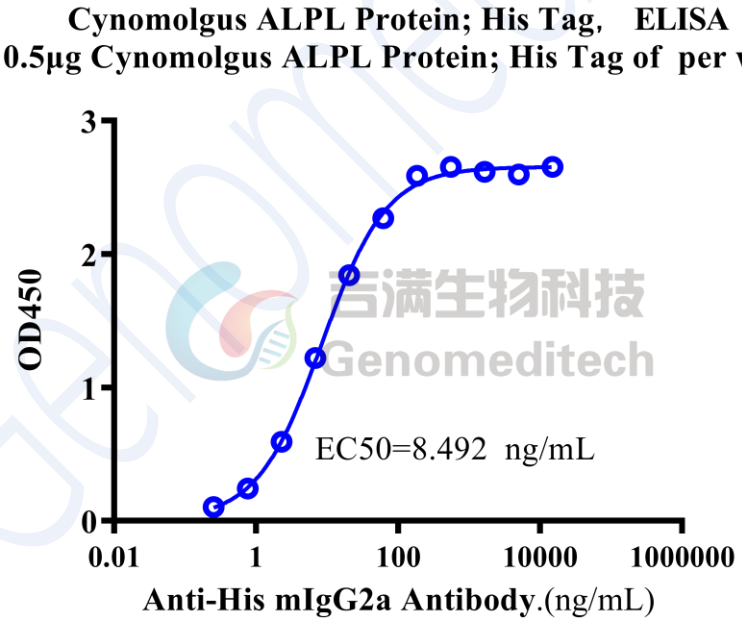
SDS-PAGE



On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Cynomolgus ALPL Protein; His Tag (Catalog # GM-84642RP) was immobilized at 5 μg/ml (100 μL/well). Increasing concentrations of Anti-His mIgG2a Antibody (Catalog # GM-59493AB) were added.