Recombinant ENPP4 protein (His tag)

Catalog Number	543989
Synonyms	5'-adenosyl; AP3A hydrolase; AP3Aase; Ectonucleotide pyrophosphatase/phosphodiesterase family member 4; E-NPP 4; NPP-4
Species	Human
Expression System	E. coli
Accession	Q9Y6X5
Molecular Weight	Predictes a molecular mass of 46.58 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 47 kDa band.

Product Information

Sequence Region	16-407
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 16-407 aa (Q9Y6X5) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant ENPP4 (Ectonucleotide pyrophosphatase/phosphodiesterase family member 4) fragment (residues 16-407), a 392-amino acid soluble unit optimized for structural and biochemical studies. This protein hydrolyzes diadenosine polyphosphates like Ap3A and Ap4A, playing key roles in vascular smooth muscle cell regulation and platelet-mediated coagulation. ENPP4 is a membrane-bound enzyme (UniProt ID: Q9Y6X5) that functions as a bis(5'-adenosyl)-triphosphatase, hydrolyzing extracellular Ap3A into AMP and ADP, and Ap4A into AMP and ATP. These diadenosine polyphosphates are implicated in promoting vascular smooth muscle cell proliferation. ENPP4 also acts as a procoagulant by mediating platelet aggregation at thrombus sites through ADP release from Ap3A and subsequent activation of ADP receptors. The protein is localized to the cell membrane as a single-pass type I membrane protein, underscoring its role in extracellular nucleotide metabolism and hemostasis pathways.