Recombinant AP4A protein (His tag)

Catalog Number	544668
Synonyms	5'-nucleosyl; Diadenosine 5',5'''-P1,P4-tetraphosphate asymmetrical hydrolase; Ap4A hydrolase; Ap4Aase; Diadenosine tetraphosphatase; Nucleoside diphosphate-linked moiety X motif 2; Nudix motif 2
Species	Human
Expression System	E. coli
Accession	P50583
Molecular Weight	Predictes a molecular mass of 18.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	2-147
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 2-147 aa (P50583) 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 NUDT2 protein fragment (residues 2-147), a stable and soluble unit of human Bis(5'-nucleosyl)-tetraphosphatase, engineered for structural and biochemical studies. This fragment retains key functional domains, enabling research into asymmetric Ap4A hydrolysis and RNA decapping activities. The full-length NUDT2 protein (encoded by the NUDT2 gene) catalyzes the asymmetric hydrolysis of diadenosine 5',5'''-P1,P4-tetraphosphate (Ap4A) to produce AMP and ATP, playing a critical role in nucleotide metabolism and signaling. It also exhibits decapping activity toward FAD-capped and dpCoA-capped RNAs in vitro, suggesting involvement in RNA regulation pathways. These functions are conserved across species, as indicated by homology data, making NUDT2 a significant target for studying cellular nucleotide dynamics and RNA modifications.