Recombinant ASML protein (His tag)

Catalog Number	539630
Synonyms	dTTPase/UTPase; Nucleoside triphosphate pyrophosphatase; Nucleotide pyrophosphatase; Nucleotide PPase; ASMTL
Species	Human
Expression System	E. coli
Accession	O95671
Molecular Weight	Predictes a molecular mass of 39.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	281-621
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 281-621 aa (O95671) 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 Probable Bifunctional dTTP/UTP Pyrophosphatase/Methyltransferase Protein (Fragment 281-621), derived from the human ASMTL gene, is a high-purity, stable fragment designed for structural and biochemical studies. This protein exhibits nucleoside triphosphate pyrophosphatase activity, hydrolyzing nucleotides like dTTP and UTP, and is ideal for investigating nucleotide metabolism and enzyme mechanisms. The full-length Probable Bifunctional dTTP/UTP Pyrophosphatase/Methyltransferase protein in Homo sapiens functions as a nucleoside triphosphate pyrophosphatase, hydrolyzing dTTP, UTP, and other nucleotides including modified forms such as pseudo-UTP and 5-methyl-UTP. It plays a dual role in cell division arrest and in preventing the incorporation of modified nucleotides into cellular nucleic acids, contributing to genomic integrity. Additionally, the protein contains a putative methyltransferase domain in its C-terminal region, suggesting potential S-adenosyl-L-methionine-dependent methyltransferase activity, though this remains to be fully characterized. The subcellular location is not specified in the provided data.