Recombinant ENTP5 protein (His tag)

Catalog Number	539552
Synonyms	CD39 antigen-like 4; ER-UDPase; Ectonucleoside triphosphate diphosphohydrolase 5; NTPDase 5; Guanosine-diphosphatase ENTPD5; GDPase ENTPD5; Inosine diphosphate phosphatase ENTPD5; Nucleoside diphosphatase; Uridine-diphosphatase ENTPD5; UDPase ENTPD5
Species	Human
Expression System	E. coli
Accession	O75356
Molecular Weight	Predictes a molecular mass of 44.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	45-428
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 45-428 aa (O75356) 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 ENTPD5 (EC 3.6.1.6) protein fragment (amino acids 45-428) from Homo sapiens, designed for structural and biochemical studies. This stable, soluble fragment retains key enzymatic activity, hydrolyzing nucleoside diphosphates like GDP, IDP, and UDP, making it ideal for investigating endoplasmic reticulum-associated nucleotide metabolism and protein quality control mechanisms. ENTPD5, also known as NTPDase 5 or ER-UDPase, is a nucleoside diphosphate phosphatase that preferentially hydrolyzes GDP, IDP, and UDP. Located in the endoplasmic reticulum and secreted, it plays a critical role in glycoprotein folding and quality control by clearing UDP from the ER lumen. This hydrolysis relieves UDP-mediated inhibition of UDP-Glc:glycoprotein glucosyltransferases, facilitating protein reglucosylation and supporting proper glycoprotein maturation. The enzyme's activity also promotes regeneration of UDP-glucose in the cytosol, underscoring its importance in cellular homeostasis and protein processing pathways.