

ENTPD5 Protein, Human (sf9, His)

Cat. No.:	HY-P76905
Synonyms:	Ectonucleoside triphosphate diphosphohydrolase 5; NTPDase 5; CD39L4; PCPH
Species:	Human
Source:	Sf9 insect cells
Accession:	O75356 (M1-H428)
Gene ID:	957
Molecular Weight:	Approximately 45 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 10% Glycerol. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

ENTPD5 protein exhibits its enzymatic activity by preferentially hydrolyzing nucleoside diphosphates, showing a distinct preference for GDP, IDP, and UDP over ADP and CDP. Operating within the endoplasmic reticulum lumen, ENTPD5 plays a crucial role in the clearance of UDP, which functions as an end-product feedback inhibitor for UDP-Glc:glycoprotein glucosyltransferases. The hydrolyzed UMP is transported back to the cytosol through an UDP-sugar antiporter, where it is consumed to regenerate UDP-glucose. This mechanism positively regulates protein reglucosylation by ensuring the removal of UDP from the ER lumen and facilitating the regeneration of UDP-glucose. The process of protein reglucosylation, governed by ENTPD5, is integral to maintaining proper glycoprotein folding and upholding quality control within the endoplasmic reticulum.

Caution: Product has not been fully validated for medical applications. For research use only.

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