

THOP1 Protein, Mouse (sf9, His)

Cat. No.:	HY-P77230
Synonyms:	Thimet Oligopeptidase; Endopeptidase 24.15; MP78; THOP1
Species:	Mouse
Source:	Sf9 insect cells
Accession:	Q8C1A5 (K2-C687)
Gene ID:	50492
Molecular Weight:	Approximately 75 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 µm 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/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/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

The THOP1 Protein plays a crucial role in the metabolism of neuropeptides under 20 amino acid residues long, participating in cytoplasmic peptide degradation. Beyond its involvement in general peptide metabolism, THOP1 exhibits the capability to degrade the amyloid-beta precursor protein, generating amyloidogenic fragments and implicating it in processes associated with neurodegenerative conditions. Additionally, THOP1 serves as a regulator in the cannabinoid signaling pathway by mediating the degradation of hemopressin, an antagonist peptide of the cannabinoid receptor CNR1. These diverse functions highlight THOP1's significance in the intricate network of cellular processes, from neuropeptide metabolism to regulatory roles in signaling pathways, with potential implications for neurological and signaling-related disorders.

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

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