

THOP1 Protein, Human (His)

Cat. No.:	HY-P71359
Synonyms:	Thimet Oligopeptidase; Endopeptidase 24.15; MP78; THOP1
Species:	Human
Source:	E. coli
Accession:	P52888 (K2-C689)
Gene ID:	7064
Molecular Weight:	80-85 kDa

PROPERTIES

AA Sequence

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K P P A A C A G D M   A D A A S P C S V V   N D L R W D L S A Q   Q I E E R T R E L I
E Q T K R V Y D Q V   G T Q E F E D V S Y   E S T L K A L A D V   E V T Y T V Q R N I
L D F P Q H V S P S   K D I R T A S T E A   D K K L S E F D V E   M S M R E D V Y Q R
I V W L Q E K V Q K   D S L R P E A A R Y   L E R L I K L G R R   N G L H L P R E T Q
E N I K R I K K K L   S L L C I D F N K N   L N E D T T F L P F   T L Q E L G G L P E
D F L N S L E K M E   D G K L K V T L K Y   P H Y F P L L K K C   H V P E T R R K V E
E A F N C R C K E E   N C A I L K E L V T   L R A Q K S R L L G   F H T H A D Y V L E
M N M A K T S Q T V   A T F L D E L A Q K   L K P L G E Q E R A   V I L E L K R A E C
E R R G L P F D G R   I R A W D M R Y Y M   N Q V E E T R Y C V   D Q N L L K E Y F P
V Q V V T H G L L G   I Y Q E L L G L A F   H H E E G A S A W H   E D V R L Y T A R D
A A S G E V V G K F   Y L D L Y P R E G K   Y G H A A C F G L Q   P G C L R Q D G S R
Q I A I A A M V A N   F T K P T A D A P S   L L Q H D E V E T Y   F H E F G H V M H Q
L C S Q A E F A M F   S G T H V E R D F V   E A P S Q M L E N W   V W E Q E P L L R M
S R H Y R T G S A V   P R E L L E K L I E   S R Q A N T G L F N   L R Q I V L A K V D
Q A L H T Q T D A D   P A E E Y A R L C Q   E I L G V P A T P G   T N M P A T F G H L
A G G Y D A Q Y Y G   Y L W S E V Y S M D   M F H T R F K Q E G   V L N S K V G M D Y
R S C I L R P G G S   E D A S A M L R R F   L G R D P K Q D A F   L L S K G L Q V G G
C E P E P Q V C

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Biological Activity	Measured by its ability to cleave a fluorogenic peptide substrate Mca-PLGPK(Dnp)-OH that incubate at room temperature in kinetic mode for 5 minutes. The specific activity is 2815.75 pmol/min/μg.
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 20 mM Tris-HCl, 500 mM NaCl, 50% Glycerol, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for

extended storage. Avoid repeated freeze-thaw cycles.

Shipping

Shipping with dry ice.

DESCRIPTION

Background

THOP1 Protein plays a crucial role in the metabolism of neuropeptides with a length of fewer than 20 amino acid residues, participating specifically in cytoplasmic peptide degradation. Its enzymatic activity extends to the degradation of the amyloid-beta precursor protein, generating fragments associated with amyloidogenesis. Additionally, THOP1 serves as a regulatory component in the cannabinoid signaling pathway, where it facilitates the degradation of hemopressin, an antagonist peptide targeting the cannabinoid receptor CNR1. The diverse functions of THOP1 underscore its involvement in intricate cellular processes, ranging from neuropeptide metabolism to the modulation of key signaling pathways.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA