



Recombinant Protein Technical Manual

Recombinant Mouse THOP1 Protein (His Tag)(Active)
RPES4249

Product Data:

Product SKU: RPES4249

Size: 10µg

Species: Mouse

Expression host: Baculovirus-Insect Cells

Uniprot: NP_073144.3

Protein Information:

Molecular Mass: 80.1 kDa

AP Molecular Mass: 75 kDa

Tag: N-His

Bio-activity: Measured by its ability to cleave a fluorogenic peptide substrate, (7-methoxycoumarin-4-yl)acetyl-Pro-Leu-Gly-Pro-D-Lys(2,4-dinitrophenyl)-OH or Mca-PLGPK(Dnp)-OH. The specific activity is > 100 pmoles/min/µg.

Purity: > 90 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: AI131655;AI327041;EP24.15

Immunogen Information:

Sequence: Lys 2-Cys 687

Background:

THOP1, also known as Thimet oligopeptidase 1, Thimet oligopeptidase, EC 3.4.24.15, or EP24.15, is a zinc(II) endopeptidase implicated in the processing of numerous physiological peptides. As an intracellular enzyme, highly expressed in the brain, kidneys and neuroendocrine tissue, THOP1 has been proposed to metabolize peptides within cells, thereby affecting antigen presentation and G protein-coupled receptor signal transduction. Its substrate is gonadotrophin-releasing hormone (GnRH), an important hypothalamic hormone that regulates the synthesis and release of oestradiol and facilitates female sexual behaviour. THOP1 against toxic effects of Abeta in the early stages of Alzheimer disease (AD) pathology, and suggest that the observed increase in THOP1 expression might be part of a compensatory defense mechanism of the brain against an increased Abeta load.