Human Thimet Oligopeptidase/THOP1 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: BAF3439

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Thimet Oligopeptidase/THOP1 in Western blots. In Western blots, approximately 5% cross-reactivity with recombinant human Neurolysin is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Thimet Oligopeptidase/THOP1 Lys2-Cys689 Accession # P52888
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Thimet Oligopeptidase/THOP1 (Catalog # 3439-ZN)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Thimet Oligopeptidase/THOP1, also known as endopeptidase EC 3.4.24.15 (EP24.15), is a zinc peptidase of the M3 family that also includes neurolysin/EC 3.4.24.16 and mitochondrial intermediate peptidase (1). Widely expressed by mammalian tissues and reported to present in different subcellular locations, THOP1 is primarily a cytoplasmic enzyme. It is capable of hydrolyzing a number of bioactive peptides and peptides released by the proteosome, limiting antigenic presentation by MHC class I molecules (1-3). THOP1 also interacts with angiotensin II type I receptor and bradykinin B2 receptor (4). The optimal activity of the purified THOP1 may or may not require the presence of a reducing agent, depending upon the source of the enzyme and the purification method used.

References:

1. Barrett, A.J. and J.-M. Chen (2004) in *Handbook of Proteolytic Enzymes.* Barrett, A.J. *et al.* eds. p. 352, Elsevier Academic Press, San Diego.
2. Ray, K. *et al.* (2004) J. Biol. Chem. **279**:20480.
3. Saric, T. *et al.* (2004) J. Biol. Chem. **279**:46723.
4. Shivakumar, B.R. *et al.* (2005) Cell Biochem. Funct. **23**:195.

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