



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# Thimet oligopeptidase (h): 293T Lysate: sc-170268

## BACKGROUND

Thimet oligopeptidase, also designated soluble metallo-endopeptidase, is a cytoplasmic protein belonging to the peptidase M3 family. The gene for the protein maps against chromosome 19q13.3. Thimet oligopeptidase can degrade the  $\beta$ -Amyloid precursor protein and generate amyloidogenic fragments. It is important in cytoplasmic peptide degradation and involved in metabolism of neuropeptides that are less than 20 amino acids in length. Thimet oligopeptidase is highly expressed in testis but can also be detected in liver, lung and kidney.

## REFERENCES

1. Pierotti, A., et al. 1990. Molecular cloning and primary structure of rat testes metalloendopeptidase EC 3.4.24.15. *Biochemistry* 29: 10323-10329.
2. McKie, N., et al. 1993. Thimet oligopeptidase: similarity to "soluble angiotensin II-binding protein" and some corrections to the published amino acid sequence of the rat testis enzyme. *Biochem. J.* 295: 57-60.
3. McCool, S., et al. 2000. Expression of the Thimet oligopeptidase gene is regulated by positively and negatively acting elements. *DNA Cell Biol.* 19: 729-738.
4. Edbauer, D., et al. 2002. Insulin-degrading enzyme rapidly removes the  $\beta$ -Amyloid precursor protein intracellular domain (AICD). *J. Biol. Chem.* 277: 13389-13393.
5. Oliveira, V., et al. 2002. Temperature and salts effects on the peptidase activities of the recombinant metallooligopeptidases neurolysin and Thimet oligopeptidase. *Eur. J. Biochem.* 269: 4326-4334.
6. York, I.A., et al. 2003. The cytosolic endopeptidase, Thimet oligopeptidase, destroys antigenic peptides and limits the extent of MHC class I antigen presentation. *Immunity* 18: 429-440.
7. Ray, K., et al. 2004. Crystal structure of human Thimet oligopeptidase provides insight into substrate recognition, regulation, and localization. *J. Biol. Chem.* 279: 20480-20489.
8. Saric, T., et al. 2004. Pathway for degradation of peptides generated by proteasomes: a key role for Thimet oligopeptidase and other metallopeptidases. *J. Biol. Chem.* 279: 46723-46732.
9. Sigman, J.A., et al. 2005. Flexibility in substrate recognition by Thimet oligopeptidase as revealed by denaturation studies. *Biochem. J.* 388: 255-261.

## CHROMOSOMAL LOCATION

Genetic locus: THOP1 (human) mapping to 19q13.3.

## PRODUCT

Thimet oligopeptidase (h): 293T Lysate represents a lysate of human Thimet oligopeptidase transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

Thimet oligopeptidase (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Thimet oligopeptidase antibodies. Recommended use: 10-20  $\mu$ l per lane.

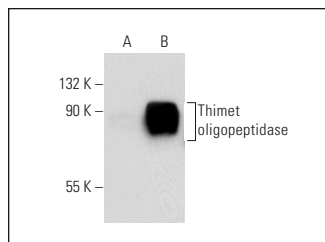
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Thimet oligopeptidase (4D6): sc-53565 is recommended as a positive control antibody for Western Blot analysis of enhanced human Thimet oligopeptidase expression in Thimet oligopeptidase transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



Thimet oligopeptidase (4D6): sc-53565. Western blot analysis of Thimet oligopeptidase expression in non-transfected: sc-117752 (A) and human Thimet oligopeptidase transfected: sc-170268 (B) 293T whole cell lysates.

## STORAGE

Store at -20 $^{\circ}$  C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.