

# Thimet oligopeptidase (H-52): sc-292630

## BACKGROUND

Thimet oligopeptidase, also designated soluble metallo-endoropeptidase, 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

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- Edbauer, D., et al. 2002. Insulin-degrading enzyme rapidly removes the  $\beta$ -Amyloid precursor protein intracellular domain (AICD). *J. Biol. Chem.* 277: 13389-13393.
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- 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.
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## CHROMOSOMAL LOCATION

Genetic locus: THOP1 (human) mapping to 19p13.3; Thop1 (mouse) mapping to 10 C1.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## SOURCE

Thimet oligopeptidase (H-52) is a rabbit polyclonal antibody raised against amino acids 306-357 mapping within an internal region of Thimet oligopeptidase of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Thimet oligopeptidase (H-52) is recommended for detection of Thimet oligopeptidase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Thimet oligopeptidase (H-52) is also recommended for detection of Thimet oligopeptidase in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Thimet oligopeptidase siRNA (h): sc-72152, Thimet oligopeptidase siRNA (m): sc-72153, Thimet oligopeptidase shRNA Plasmid (h): sc-72152-SH, Thimet oligopeptidase shRNA Plasmid (m): sc-72153-SH, Thimet oligopeptidase shRNA (h) Lentiviral Particles: sc-72152-V and Thimet oligopeptidase shRNA (m) Lentiviral Particles: sc-72153-V.

Molecular Weight of Thimet oligopeptidase: 74 kDa.

Positive Controls: rat brain extract: sc-2392, IMR-32 cell lysate: sc-2409 or HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## PROTOCOLS

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