

# Product Datasheet

## Thimet Oligopeptidase/THOP1 Antibody (4D6) - BSA Free NB400-146

Unit Size: 0.1 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

### Publications: 3

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:  
[www.novusbio.com/NB400-146](http://www.novusbio.com/NB400-146)

Updated 9/9/2025 v.20.1

Earn rewards for product  
reviews and publications.

Submit a publication at [www.novusbio.com/publications](http://www.novusbio.com/publications)

Submit a review at [www.novusbio.com/reviews/destination/NB400-146](http://www.novusbio.com/reviews/destination/NB400-146)



**NB400-146**

Thimet Oligopeptidase/THOP1 Antibody (4D6) - BSA Free

| Product Information     |                                                              |
|-------------------------|--------------------------------------------------------------|
| Unit Size               | 0.1 ml                                                       |
| Concentration           | 1.54 mg/ml                                                   |
| Storage                 | Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles. |
| Clonality               | Monoclonal                                                   |
| Clone                   | 4D6                                                          |
| Preservative            | 0.05% Sodium Azide                                           |
| Isotype                 | IgG2b                                                        |
| Purity                  | Protein A purified                                           |
| Buffer                  | Tris-Glycine and 0.15M NaCl                                  |
| Target Molecular Weight | 80 kDa                                                       |

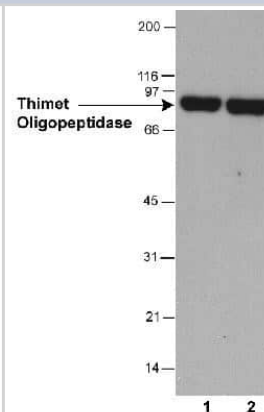
| Product Description |                                                                                                                                                                                                                                                                                                     |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description         | Novus Biologicals Mouse Thimet Oligopeptidase/THOP1 Antibody (4D6) - BSA Free (NB400-146) is a monoclonal antibody validated for use in IHC, WB and ICC/IF. Anti-Thimet Oligopeptidase/THOP1 Antibody: Cited in 3 publications. All Novus Biologicals antibodies are covered by our 100% guarantee. |
| Host                | Mouse                                                                                                                                                                                                                                                                                               |
| Gene ID             | 7064                                                                                                                                                                                                                                                                                                |
| Gene Symbol         | THOP1                                                                                                                                                                                                                                                                                               |
| Species             | Human, Mouse, Rat, Primate, Rabbit                                                                                                                                                                                                                                                                  |
| Immunogen           | A synthetic peptide corresponding to residues 56-72 of human Thimet Oligopeptidase. [UniProt# P52888]                                                                                                                                                                                               |

| Product Application Details |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applications                | Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Recommended Dilutions       | Western Blot 1:750-1:3000, Immunohistochemistry 1:400, Immunocytochemistry/Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 1:400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Application Notes           | This Thimet Oligopeptidase (4D6) antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry on paraffin-embedded sections and Western blot, where a band is seen at ~80 kDa. For IHC-P, this antibody has been tested in human, monkey, and rat brain and testis. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors. |

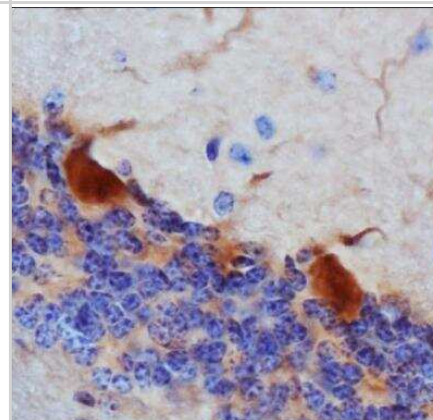


## Images

Western Blot: Thimet Oligopeptidase Antibody (4D6) [NB400-146] - Detection of thimet oligopeptidase antibody in HeLa whole cell lysate (30 ug) using NB400-146. Lane 1: 0.5 ug/ml; lane 2: 2 ug/ml. 1 minute ECL exposure.



Immunohistochemistry: Thimet Oligopeptidase Antibody (4D6) [NB400-146] - Analysis of Thimet Oligopeptidase in mouse brain using DAB with hematoxylin counterstain.



## Publications

Bhatia HS, Brunner AD, Oztürk F et al. Spatial proteomics in three-dimensional intact specimens Cell 2022-12-22 [PMID: 36563667]

Azizi AA, Kang SU, Freilinger A, Gruber-Olipitz M, Chen WQ, Yang JW, Hengstschlager M, Slavc I, Lubec G. Mitosis-dependent protein expression in neuroblastoma cell line N1E-115. J Proteome Res;7(8):3412-22. 2008-08-01 [PMID: 18582092] (WB, Mouse)

Conn, KJ et al. Monoclonal antibodies against the human metalloprotease EC 3.4.24.15 label neurofibrillary tangles in Alzheimer's disease brain. J Neurochem. 66(5):2011-8. 1996-05-01 [PMID: 8780030]

## Procedures

### Western Blot protocol specific for Thimet Oligopeptidase Antibody (NB400-146)

Thimet Oligopeptidase/THOP1 Antibody (4D6):

#### Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

**\*\*Note:** Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

#### Immunohistochemistry-Paraffin Embedded Sections

##### Antigen Unmasking:

Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes.

##### Staining:

1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.



**Immunohistochemistry-Paraffin protocol for Thimet Oligopeptidase/THOP1 Antibody (NB400-146)**

Thimet Oligopeptidase/THOP1 Antibody (4D6):

Immunohistochemistry-Paraffin Embedded Sections

**Antigen Unmasking:**

Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes.

**Staining:**

1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.





### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

[www.novusbio.com](http://www.novusbio.com)  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NB400-146**

---

|            |                                                         |
|------------|---------------------------------------------------------|
| NBL1-16893 | Thimet Oligopeptidase/THOP1 Overexpression Lysate       |
| HAF007     | Goat anti-Mouse IgG Secondary Antibody [HRP]            |
| NB720-B    | Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin] |
| NBP2-27231 | Mouse IgG2b Isotype Control (MPC-11)                    |

---

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

Earn gift cards/discounts by submitting a review: [www.novusbio.com/reviews/submit/NB400-146](http://www.novusbio.com/reviews/submit/NB400-146)

Earn gift cards/discounts by submitting a publication using this product:  
[www.novusbio.com/publications](http://www.novusbio.com/publications)

