Thimet oligopeptidase (IVD6) Mouse mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

**Applications:**
- WB, IHC-P

**Reactivity:**
- H Mk

**Sensitivity:**
- Endogenous

**MW (kDa):** 80

**Source/Isotype:**
- Mouse IgG2b

**UniProt ID:** #P52888

**Entrez-Gene Id:** 7064

**Product Usage Information**

<table>
<thead>
<tr>
<th>Application</th>
<th>Dilution</th>
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<tbody>
<tr>
<td>Western Blotting</td>
<td>1:1000</td>
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<tr>
<td>Immunohistochemistry (Paraffin)</td>
<td>1:25</td>
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</tbody>
</table>

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at −20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**

Thimet oligopeptidase (IVD6) Mouse mAb detects endogenous levels of total Thimet oligopeptidase protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues in the amino-terminal region of Thimet oligopeptidase protein.

**Background**

Amyloid beta precursor protein (APP) is a 100-140 kDa transmembrane glycoprotein containing the amyloid domain (A-beta). Beta-secretase is involved in proteolytic cleavage of APP releasing A-beta. The extracellular deposition and accumulation of the released A-beta fragments form the main components of amyloid plaques in Alzheimer's disease (1). Thimet oligopeptidase is a ubiquitously expressed metalloendopeptidase that was originally identified as a candidate beta-secretase (2). However, subsequent studies show that Thimet oligopeptidase promotes A-beta degradation. In addition, Thimet oligopeptidase inactivates a number of neuropeptides such as somatostatin, bradykinin, substance P and neurotensin (3). Finally, Thimet oligopeptidase has been shown both to increase and decrease presentation of antigenic peptides by the MHC-I at the cell surface. Despite these opposing results, there is consensus that Thimet oligopeptidase degrades peptides released by the proteasome (4-5).

**Background References**


**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

- **WB:** Western Blotting
- **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

- **H:** human
- **M:** mouse
- **R:** rat
- **Mk:** hamster
- **K:** monkey
- **V:** virus
- **Mi:** chicken
- **Dm:** D. melanogaster
- **X:** Xenopus
- **Z:** zebrafish
- **B:** bovine
- **Pg:** pig
- **Sc:** S. cerevisiae
- **Ce:** C. elegans
- **Hr:** horse
- **GP:** Guinea Pig
- **Rab:** rabbit
- **All:** all species expected

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