

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse Meprin $\beta$ Subunit/MEP1B in direct ELISAs and Western blots. In Western blots, approximately 40% cross-reactivity with recombinant human MEP1B is observed.                                                                                               |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse Meprin $\beta$ Subunit/MEP1B<br>Leu21-Ser594 (Thr75Ile, Ile432Val)<br>Accession # Q61847                                                                                                                              |
| <b>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunoprecipitation</b>  | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Meprins are multimeric proteases composed of  $\alpha$  and  $\beta$  subunits, which are members of the astacin family of zinc endopeptidases (1, 2). Both subunits form disulfide-linked homo- or heterooligomers, which are also referred to as meprin A (composed of  $\alpha$  subunits with or without  $\beta$  subunits) and meprin B (composed of  $\beta$  subunits only) (3). Although the two subunits share 42% identity in their amino acid sequence, they differ significantly in their oligomeric structure, post-translational processing and subsequently cellular location, and substrate and peptide bond specificity (4). The 704 amino acid sequence of mouse meprin  $\beta$  subunit precursor consists of a signal peptide (residues 1-20), a pro region (residues 21-62), and a mature chain (residues 63-704) containing following domains, catalytic (residues 63-260), MAM (residues 261-430), MATH (residues 431-586), EGF-like (residues 607-647), transmembrane (residues 655-678), and cytoplasmic (residues 679-704). The pro enzyme terminating at residue 594 was expressed and the secreted protein purified from conditioned medium. The amino acid sequence has Ile and Val at position 75 and 432 instead of Thr and Ile, respectively. After trypsin treatment, the activated enzyme cleaved a fluorogenic peptide, which contains Asp and Glu, the preferred residues found in the P1' and P1 sites (3).

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