Human Meprin β Subunit/MEP1B Antibody

Antigen Affinity-purified Polyclonal Goat IgG

Catalog Number: AF2895

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Meprin β Subunit/MEP1B in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 45% cross-reactivity with recombinant mouse MEP1B is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Meprin β Subunit/MEP1B Leu21-Ser593 Accession # NP_005916
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

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.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Meprin β Subunit/MEP1B (Catalog # 2895-ZN)
Immunohistochemistry	5-15 µg/mL	Immersion fixed paraffin-embedded sections of human small intestine
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Meprin β Subunit/MEP1B (Catalog # 2895-ZN), see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Meprins are multimeric proteases composed of α and β 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 Merpin A (composed of α subunits with or without β subunits) and Merpin B (composed of β 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 701 amino acid sequence of human Merpin β subunit precursor consists of a signal peptide (residues 1 to 21), a pro region (residues 22 to 61), and a mature chain (residues 62 to 701) containing the following domains, catalytic (residues 62 to 259), MAM (residues 260 to 429), MATH (residues 430 to 585), EGF-like (residues 604 to 644), transmembrane (residues 653 to 673), and cytoplasmic (residues 674 to 701). The pro enzyme terminating at residue 593 was expressed and the secreted protein purified from conditioned medium. After trypsin treatment, the activated enzyme cleaved a flurogenic peptide, which contains Asp and Glu, the preferred residues found in the P1' and P1 sites (3).

References:

1. Bond, J.S. and R.J. Beynon (1995) Protein Sci. **4**:1247.
2. Stocker, W. *et al.* (1995) Protein Sci. **4**:823.
3. Bertenshaw, G.P. *et al.* (2001) J. Biol. Chem. **276**:13248.
4. Ishmael, F.T. *et al.* (2005) J. Biol. Chem. **280**:13895.

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