

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Meprin α Subunit/MEP1A in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant mouse MEP1A and recombinant human MEP1B is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Meprin α Subunit/MEP1A Val22-Gln601 Accession # AAA21338
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.
Intracellular Staining by Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	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 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 Meprin A (composed of α subunits with or without β subunits) and Meprin 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 746 amino acid sequence of human meprin α subunit precursor consists of a signal peptide (residues 1 to 21), a pro region (residues 22 to 65), and a mature chain (residues 66 to 746) containing following domains, catalytic (residues 62 to 263), MAM (residues 264 to 433), MATH (residues 434 to 593), EGF-like (residues 670 to 710), transmembrane (residues 713 to 740), and cytoplasmic (residues 741 to 746). The pro enzyme terminating at residue 601 was expressed and the secreted protein purified from conditioned medium. The molecular masses of rhMEP1A are similar to those observed for the α subunit of rat Meprin A (5).

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