

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Aminopeptidase in direct ELISAs and Western blots.
Source	Monoclonal Rat IgG _{2A} Clone # 945033
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with mouse Aminopeptidase Lys69-Ser966 Accession # P97449
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.

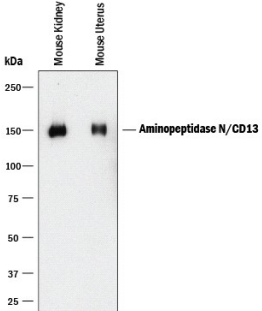
APPLICATIONS

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	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below

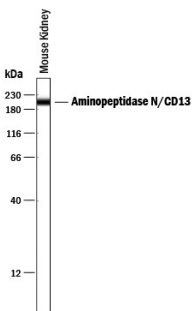
DATA

Western Blot




Detection of Mouse Aminopeptidase N/CD13 by Western Blot. Western blot shows lysates of mouse kidney tissue and mouse uterus tissue. PVDF membrane was probed with 1 µg/mL of Rat Anti-Mouse Aminopeptidase N/CD13 Monoclonal Antibody (Catalog # MAB2335) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band was detected for Aminopeptidase N/CD13 at approximately 150 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Mouse Aminopeptidase N/CD13 by Simple Western™. Simple Western lane view shows lysates of mouse kidney tissue, loaded at 0.2 mg/mL. A specific band was detected for Aminopeptidase N/CD13 at approximately 204 kDa (as indicated) using 10 µg/mL of Rat Anti-Mouse Aminopeptidase N/CD13 Monoclonal Antibody (Catalog # MAB2335) followed by 1:50 dilution of HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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. <ul style="list-style-type: none"> • 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

The mouse Anpep gene encodes Aminopeptidase N (APN), which is also known as microsomal aminopeptidase, alanyl aminopeptidase, Aminopeptidase M, CD13, or membrane protein p161 (1-3). The deduced amino acid sequence of mouse APN consists of a short cytoplasmic tail (residues 2 to 8), a transmembrane region (residue 9 to 32), a Ser/Thr rich region and a zinc metalloprotease domain (residues 69 to 966). Widely expressed in many cells, tissues and species, APN cleaves the N-terminal amino acids from bioactive peptides, leading to their inactivation or degradation. The roles of APN in many fields, such as neuroscience, hematopoietic cells, immune system, angiogenesis, cancer and viral infection, have been reviewed (4).

References:

1. Chen, H. *et al.* (1996) *J. Immunol.* **157**:2593.
2. Larsen, S.L. *et al.* (1996) *J. Exp. Med.* **184**:183.
3. Hansen, A.S. *et al.* (1993) *Eur. J. Immunol.* **23**:2358.
4. Turner, A.J. (2004) in *Handbook of Proteolytic Enzymes* (ed. Barrett, *et al.*) p. 289 Academic Press, San Diego.