

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Aminopeptidase N/CD13 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Aminopeptidase N/CD13 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.

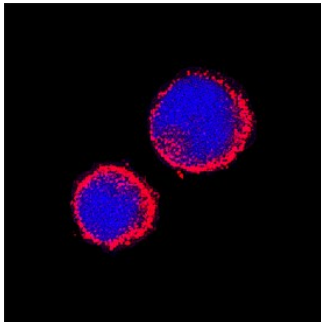
APPLICATIONS

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	0.1 µg/mL	Recombinant Mouse Aminopeptidase N/CD13 (Catalog # 2335-ZN)
Flow Cytometry	2.5 µg/10 ⁶ cells	bEnd.3 mouse endothelioma cell line
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	0.1-15 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Mouse Aminopeptidase N/CD13 (Catalog # 2335-ZN), see our available Western blot detection antibodies
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

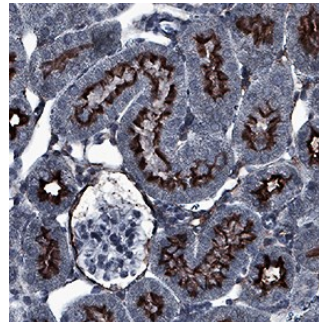
DATA

Immunocytochemistry



Aminopeptidase N/CD13 in Mouse Splenocytes. Aminopeptidase N/CD13 was detected in immersion fixed mouse splenocytes using Goat Anti-Mouse Aminopeptidase N/CD13 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2335) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Immunohistochemistry



Aminopeptidase N/CD13 in Mouse Kidney. Aminopeptidase N/CD13 was detected in immersion fixed paraffin-embedded sections of mouse kidney using Goat Anti-Mouse Aminopeptidase N/CD13 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2335) at 0.1 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to apical membrane. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

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. <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.