

# Human Aminopeptidase N/CD13 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG<sub>1</sub> Clone # WM-15

Catalog Number: FAB8284G

100 Tests

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Aminopeptidase N/CD13 in flow cytometry
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # WM-15
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Human AML cells
<b>Conjugate</b>	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.

\*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.

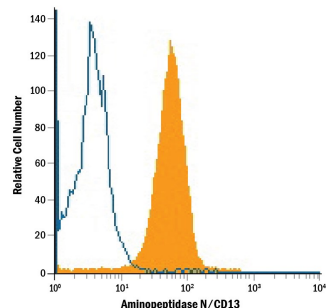
## APPLICATIONS

**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>Recommended Concentration</b>	<b>Sample</b>
<b>Knockout Validated</b>	µg/mL	Aminopeptidase N/CD13 is specifically detected in U937 human lymphoma parental cell line but is not detectable in Aminopeptidase N/CD13 knockout U937 cell line.
<b>Flow Cytometry</b>	5 µL/10 <sup>6</sup> cells	See Below

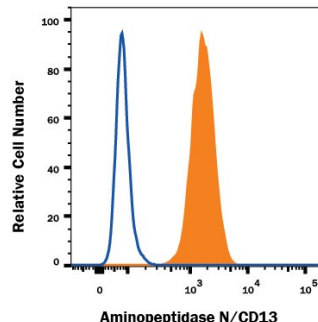
## DATA

### Flow Cytometry



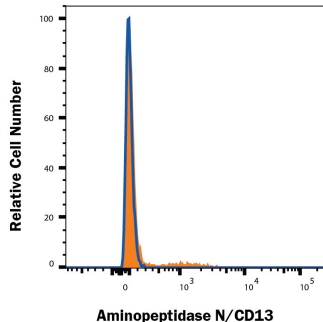
**Detection of Aminopeptidase N/CD13 in Human Blood Granulocytes by Flow Cytometry.** Human peripheral blood granulocytes were stained with Mouse Anti-Human Aminopeptidase N/CD13 Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # FAB8284G, filled histogram) or isotype control antibody (Catalog # IC002G, open histogram). View our protocol for [Staining Membrane-associated Proteins](#).

### Flow Cytometry



**Detection of Aminopeptidase N/CD13 in U937 human cell line by Flow Cytometry.** U937 human cell line was stained with Mouse Anti-Human Aminopeptidase N/CD13 Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # FAB8284G, filled histogram) or isotype control antibody (Catalog # IC002G, open histogram). View our protocol for [Staining Membrane-associated Proteins](#).

### Knockout Validated



**Aminopeptidase N/CD13 Specificity is Shown by Flow Cytometry in Knockout Cell Line.** Aminopeptidase N/CD13 knockout U937 human lymphoma cell line was stained with Alexa Fluor® 488-conjugated Mouse Anti-Human Aminopeptidase N/CD13 Monoclonal Antibody (Catalog # FAB8284G, filled histogram) or isotype control antibody (Catalog # IC002G, open histogram). No staining in the Aminopeptidase N/CD13 knockout U937 cell line was observed. Staining was performed using our [Staining Membrane-associated Proteins](#) protocol.

## 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>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

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## BACKGROUND

The human 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 human 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). The amino acid sequence of human APN is 78% and 77% identical to that of rat and mouse, respectively. 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 (3).

## References:

1. Olsen, J. *et al.* (1988) FEBS Lett. **238**:307.
2. Look, A.T. *et al.* (1989) J. Clin. Invest. **83**:1299.
3. Turner, A.J. (2004) in *Handbook of Proteolytic Enzymes* (ed. Barrett, *et al.*) pp. 289, Academic Press, San Diego.

## PRODUCT SPECIFIC NOTICES

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