

# ANPEP monoclonal antibody, clone WM15 (FITC)

Catalog # MAB4355 Size 100 Reactions

| Specification        |   |
|----------------------|---|
| Product Description  | Mouse monoclonal antibody raised against native ANPEP.  |
| lmmunogen            | Native purified ANPEP from human AML cell.  |
| Host                 | Mouse   |
| Theoretical MW (kDa) | 150   |
| Reactivity           | Human, Non-Human Primates   |
| Specificity          | This antibody recognizes the human CD13 cell surface glycoprotein, a 150 KDa molecule expressed on granulocytes, endothelial cells, epithelial cells and myeloid progenitors. |
| Form                 | Liquid  |
| Conjugation          | FITC  |
| Isotype              | lgG1  |
| Recommend Usage      | Flow Cytometry (20 ul in human blood cells 100 ul in whole blood or 10 <sup>6</sup> cells in a suspension) The optimal working dilution should be determined by the end user. |
| Storage Buffer       | In PBS (0.2% BSA, 0.09% sodium azide)   |
| Storage Instruction  | Store in the dark at 4°C. Do not freeze.  Avoid prolonged exposure to light.  Aliquot to avoid repeated freezing and thawing.   |
| Note                 | This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.   |

## Applications

Immunohistochemistry (Frozen sections)



- Immunoprecipitation
- Functional Study
- Flow Cytometry

| Gene Info — ANPEP  |  |
|--------------------|--|
| Entrez GenelD      | 290  |
| Gene Name          | ANPEP  |
| Gene Alias         | APN, CD13, LAP1, PEPN, gp150, p150   |
| Gene Description   | alanyl (membrane) aminopeptidase   |
| Omim ID            | <u>151530</u>  |
| Gene Ontology      | <u>Hyperlink</u>   |
| Gene Summary       | Aminopeptidase N is located in the small-intestinal and renal microvillar membrane, and also in ot her plasma membranes. In the small intestine aminopeptidase N plays a role in the final digestion of peptides generated from hydrolysis of proteins by gastric and pancreatic proteases. Its function in proximal tubular epithelial cells and other cell types is less clear. The large extracellular carboxyt erminal domain contains a pentapeptide consensus sequence characteristic of members of the zi nc-binding metalloproteinase superfamily. Sequence comparisons with known enzymes of this class showed that CD13 and aminopeptidase N are identical. The latter enzyme was thought to be in volved in the metabolism of regulatory peptides by diverse cell types, including small intestinal and renal tubular epithelial cells, macrophages, granulocytes, and synaptic membranes from the CN S. Human aminopeptidase N is a receptor for one strain of human coronavirus that is an important cause of upper respiratory tract infections. Defects in this gene appear to be a cause of various types of leukemia or lymphoma. [provided by RefSeq |
| Other Designations | OTTHUMP00000194690 aminopeptidase M aminopeptidase N membrane alanine aminopeptid ase microsomal aminopeptidase  |

### **Publication Reference**

• CD13 (GP150; aminopeptidase-N): predominant functional activity in blood is localized to plasma and is not cell-surface associated.

Favaloro EJ, Browning T, Facey D.

Exp Hematol 1993 Dec; 21(13):1695.



Myeloid progenitor surface antigen identified by monoclonal antibody.

Bradstock KF, Favaloro EJ, Kabral A, Kerr A, Hughes WG, Musgrove E.

British Journal of Haematology 1985 Sep; 61(1):11.

Application: Flow Cyt, Human, Human normal bone marrow cells

• Human myeloid differentiation antigens identified by monoclonal antibodies: expression on leukemic cells.

Bradstock KF, Favaloro EJ, Kabral A, Kerr A, Hughes WG, Berndt MC, Musgrove E.

Pathology 1985 Jul; 17(3):392.

### Pathway

- Glutathione metabolism
- Hematopoietic cell lineage
- Metabolic pathways
- Renin-angiotensin system

#### Disease

- Genetic Predisposition to Disease
- Hypertension
- Lung Neoplasms
- Tobacco Use Disorder