ANPEP monoclonal antibody, clone WM15 (PE)

Catalog # MAB4356 Size 100 Reactions

Specification

Product Description	Mouse monoclonal antibody raised against native ANPEP.
Immunogen	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	PE
lsotype	lgG1
Recommend Usage	Flow Cytometry (20 ul in human blood cells 100 ul in whole blood or 10 ⁶ 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	<u>290</u>
Gene Name	ANPEP
Gene Alias	APN, CD13, LAP1, PEPN, gp150, p150
Gene Description	alanyl (membrane) aminopeptidase
Omim ID	<u>151530</u>
Gene Ontology	Hyperlink
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 cla ss 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 an d 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 importan t cause of upper respiratory tract infections. Defects in this gene appear to be a cause of various t ypes of leukemia or lymphoma. [provided by RefSeq
Other Designations	OTTHUMP00000194690 aminopeptidase M aminopeptidase N membrane alanine aminopeptid ase microsomal aminopeptidase

Publication Reference

- <u>CD13 (GP150; aminopeptidase-N): predominant functional activity in blood is localized to plasma and is not cell-surface associated.</u>
 - Favaloro EJ, Browning T, Facey D.
 - Exp Hematol 1993 Dec; 21(13):1695.

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• 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

- <u>Glutathione metabolism</u>
- Hematopoietic cell lineage
- Metabolic pathways
- <u>Renin-angiotensin system</u>

Disease

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