10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CD13 / Aminopeptidase-N (Myeloid Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone APN/514]
Catalog # AH11368

Product Information

Application	IHC, IF, FC
Primary Accession	P15144
Other Accession	290, 1239
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	APN/514
Calculated MW	109540

Additional Information

Gene ID	290
Other Names	Aminopeptidase N, AP-N, hAPN, 3.4.11.2, Alanyl aminopeptidase, Aminopeptidase M, AP-M, Microsomal aminopeptidase, Myeloid plasma membrane glycoprotein CD13, gp150, CD13, ANPEP, APN, CD13, PEPN
Application Note	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD13 / Aminopeptidase-N (Myeloid Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ANPEP
Synonyms	APN, CD13, PEPN
Function	Broad specificity aminopeptidase which plays a role in the final digestion of peptides generated from hydrolysis of proteins by gastric and pancreatic proteases. Also involved in the processing of various peptides including peptide hormones, such as angiotensin III and IV, neuropeptides, and chemokines. May also be involved the cleavage of peptides bound to major histocompatibility complex class II molecules of antigen presenting cells. May have a role in angiogenesis and promote cholesterol crystallization. May have a role in amino acid transport by acting as binding partner of amino acid

	transporter SLC6A19 and regulating its activity (By similarity).
Cellular Location	Cell membrane; Single-pass type II membrane protein. Note=Also found as a soluble form
Tissue Location	Expressed in epithelial cells of the kidney, intestine, and respiratory tract; granulocytes, monocytes, fibroblasts, endothelial cells, cerebral pericytes at the blood-brain barrier, synaptic membranes of cells in the CNS. Also expressed in endometrial stromal cells, but not in the endometrial glandular cells. Found in the vasculature of tissues that undergo angiogenesis and in malignant gliomas and lymph node metastases from multiple tumor types but not in blood vessels of normal tissues. A soluble form has been found in plasma. It is found to be elevated in plasma and effusions of cancer patients.

Background

This MAb recognizes an extracellular epitope of an integral membrane glycoprotein of 150kDa, identified as CD13. This antigen is present on most cells of myeloid origin including granulocytes, monocytes, mast cells, and GM-progenitor cells. It is also expressed by the majority of AML, CML in myeloid blast crisis, and in a smaller fraction of lymphoid leukemias. It is absent from normal lymphocytes, platelets and erythrocytes. CD13 is also present on fibroblasts; endothelial cells, epithelial cells from renal proximal tubules and intestinal brush border, bone marrow stromal cells, osteoclasts, and cells lining bile duct canaliculi. CD13 is identical to aminopeptidase N (APN), a prominent membrane-bound metalloprotease present on the surface of intestinal brush border and renal tubules. CD13 plays a role in metabolism of biologically active peptides, in phagocytosis, and in bactericidal/tumoricidal activities. It also serves as a receptor for human coronaviruses (HCV). The lineage-restricted pattern of expression of CD13 within the hemopoietic compartment suggests that it may be important in myeloid cell differentiation.

References

Principe S et al. Identification of prostate-enriched proteins by in-depth proteomic analyses of expressed prostatic secretions in urine. J Proteome Res 11:2386-96 (2012). | Favaloro EJ et al. The hepatobiliary disease marker serum alanine aminopeptidase predominantly comprises an isoform of the haematological myeloid differentiation antigen and leukaemia marker CD-13/gp150. Clin Chim Acta 220:81-90 (1993)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.