Product Name: CD13 Rabbit Polyclonal Antibody
Catalog #: APRab08201

Summary

Production Name	CD13 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,IF,ELISA
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	ANPEP
Alternative Names	ANPEP; APN; CD13; PEPN; Aminopeptidase N; AP-N; hAPN; Alanyl aminopeptidase; Aminopeptidase M; AP-M; Microsomal aminopeptidase; Myeloid plasma membrane glycoprotein CD13; gp150; CD13
Gene ID	290.0
SwissProt ID	P15144.Synthesized peptide derived from Aminopeptidase N at AA range: 881-930

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC-p: 1:100-1:300. ELISA: 1:10000.. IF 1:50-200
Molecular Weight	110kD

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Background

Aminopeptidase N is located in the small-intestinal and renal microvillar membrane, and also in other 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 carboxyterminal domain contains a pentapeptide consensus sequence characteristic of members of the zinc-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 involved 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 CNS. Human aminopeptidase N iscatalytic activity:Release of an N-terminal amino acid, Xaa-|-Yaa- from a peptide, amide or arylamide. Xaa is preferably Ala, but may be most amino acids including Pro (slow action). When a terminal hydrophobic residue is followed by a prolyl residue, the two may be released as an intact Xaa-Pro dipeptide.,cofactor:Binds 1 zinc ion per subunit.,disease:Defects in ANPEP may be a cause of various types of leukemia or lymphoma.,domain:Amino acids 260-353 are essential to mediate susceptibility to infection with HCoV-229E (in porcine/human chimeric studies) and more specifically amino acids 288-295 (mutagenesis studies).,function:Broad specificity aminopeptidase. Plays a role in the final digestion of peptides generated from hydrolysis of proteins by gastric and pancreatic proteases. May play a critical role in the pathogenesis of cholesterol gallstone disease. May be involved in the metabolism of regulatory peptides of diverse cell types including small intestinal and tubular epithelial cells, macrophages, granulocytes and synaptic membranes from the CNS. Found to cleave antigen peptides bound to major histocompatibility complex class II molecules of presenting cells and to degrade neurotransmitters at synaptic junctions. Is also implicated as a regulator of IL-8 bioavailability in the endometrium, and therefore may contribute to the regulation of angiogenesis. Is used as a marker for acute myeloid leukemia and plays a role in tumor invasion. In case of human coronavirus 229E (HCoV-229E) infection, serves as receptor for HCoV-229E spike glycoprotein. Mediates as well human cytomegalovirus (HCMV) infection.,induction:Estradiol and IL-8 decrease enzymatic activity in vitro in endometrial stromal cells by 40% and 30%, respectively.,miscellaneous:Found to serve as a receptor for tumor-homing peptides, more specifically NGR peptides. It could serve thus as a target for delivering drugs into tumors. Concentration in human hepatic bile, varies from 17.3 to 57.6 micrograms/ml.,PTM:May undergo proteolysis and give rise to a soluble form.,PTM:N- and O-glycosylated.,PTM:Sulfated.,similarity:Belongs to the peptidase M1 family.,subcellular location:A soluble form has also been detected.,subunit:Homodimer. Interacts with the S1 domain of HCoV-229E spike protein.,tissue specificity: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.,

Research Area

Glutathione metabolism;Renin-angiotensin system;Hematopoietic cell lineage;

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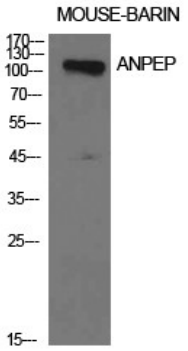
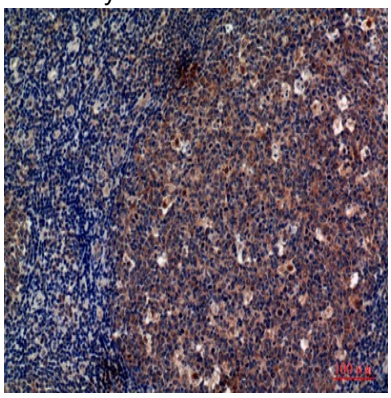
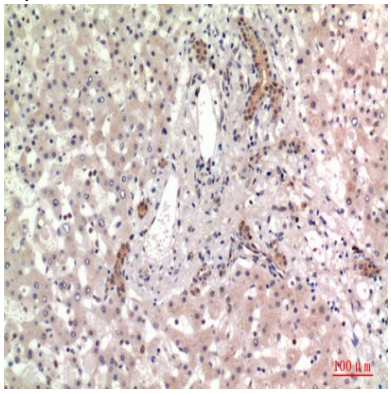
Image Data



Western Blot analysis of mouse brain cells using CD13 Polyclonal Antibody. Antibody was diluted at 1:1000. Secondary antibody was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-tonsils, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded human-liver, antibody was diluted at 1:100

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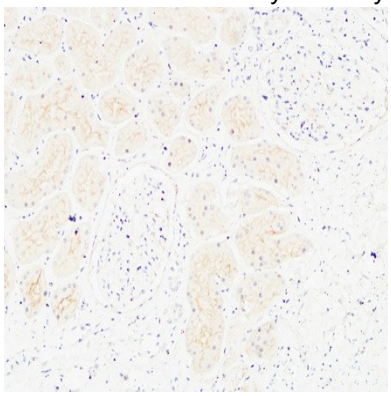
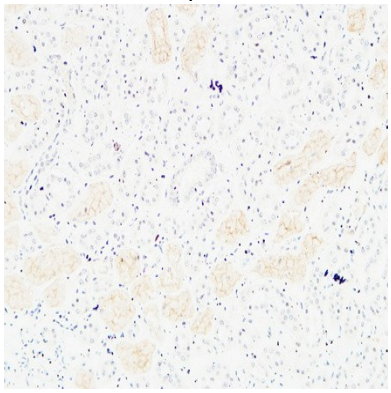
Western Blot analysis of mouse-liver mouse-heart mouse-kidney mouse-spleen mouse-brain mouse-heart using CD13 Polyclonal Antibody diluted at 1:1000. Secondary antibody was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded Human kidney. 1, Antibody was diluted at 1:200（4°,overnight）. 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200（room temperature, 30min）.



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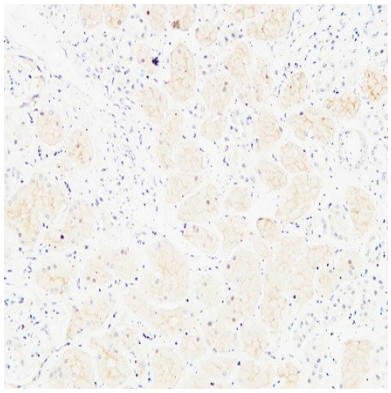

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Note

For research use only.