

Mouse CD13/ANPEP Monoclonal Antibody | anti-ANPEP antibody

Anti-CD13/ANPEP Antibody (monoclonal, 5B9)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19371	Mouse	Human, Rat, Monkey	Western Blot, Immunohistochemistry

PRODUCT SYNONYMS

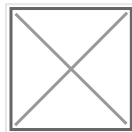
CD13/ANPEP; Monoclonal Antibody; Anti-CD13/ANPEP Antibody (monoclonal; 5B9); Aminopeptidase N; AP-N; hAPN; Alanyl aminopeptidase; Aminopeptidase M; AP-M; Microsomal aminopeptidase

Myeloid plasma membrane glycoprotein CD13; gp150; CD13; alanyl aminopeptidase; membrane; anti-ANPEP antibody

PRODUCT SPECIFICATIONS

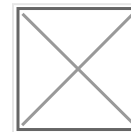
Host	Mouse
Reactivity	Human, Rat, Monkey
Clonality	Monoclonal
Isotype	Mouse IgG2b
Clone Number	5B9
Specificity	Mouse IgG monoclonal antibody for CD13/ANPEP detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
Applicable Applications for anti-ANPEP antibody	WB (Western Blot), IHC (Immunohistochemistry)
Application Notes	WB: 0.25-0.5ug/ml Human, Rat, Monkey IHC-P: 2-5ug/ml Human, Rat
Immunogen	E Coli-derived human CD13/ANPEP recombinant protein (Position: D148-S966).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



IHC (Immunohistochemistry)

Figure 6. IHC analysis of CD13/ANPEP using anti-CD13/ANPEP antibody (AAA19371). CD13/ANPEP was detected in paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-CD13/ANPEP Antibody (AAA19371) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 5. IHC analysis of CD13/ANPEP using anti-CD13/ANPEP antibody (AAA19371). CD13/ANPEP was detected in paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-CD13/ANPEP Antibody (AAA19371) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



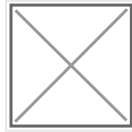
IHC (Immunohistochemistry)

Figure 4. IHC analysis of CD13/ANPEP using anti-CD13/ANPEP antibody (AAA19371).CD13/ANPEP was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-CD13/ANPEP Antibody (AAA19371) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



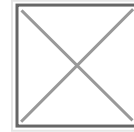
IHC (Immunohistochemistry)

Figure 3. IHC analysis of CD13/ANPEP using anti-CD13/ANPEP antibody (AAA19371).CD13/ANPEP was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-CD13/ANPEP Antibody (AAA19371) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 2. IHC analysis of CD13/ANPEP using anti-CD13/ANPEP antibody (AAA19371).CD13/ANPEP was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-CD13/ANPEP Antibody (AAA19371) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



WB (Western Blot)

Figure 1. Western blot analysis of CD13/ANPEP using anti-CD13/ANPEP antibody (AAA19371).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human THP-1 whole cell lysatesLane 2: human PC-3 whole cell lysatesLane 3: monkey kidney tissue lysatesLane 4: rat kidney tissue lysatesLane 5: rat liver tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with mouse anti-CD13/ANPEP antigen affinity purified monoclonal antibody (Catalog # AAA19371) at 0. 5 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # with Tanon 5200 system. A specific band was detected for CD13/ANPEP at approximately 150KD. The expected band size for CD13/ANPEP is at 150KD.

ADDITIONAL INFORMATION

Related Product Information for anti-ANPEP antibody	Membrane alanyl aminopeptidase (EC 3. 4. 11. 2) also known as alanyl aminopeptidase (AAP) or aminopeptidase N (AP-N) is an enzyme that in humans is encoded by the ANPEP gene. It is mapped to 15q26. 1. 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 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.
References	1. Delmas, B., Gelfi, J., L'Haridon, R., Vogel, L. K., Sjostrom, H., Noren, O., Laude, H. Aminopeptidase N is a major receptor for the enteropathogenic coronavirus TGEV. Nature 357: 417-420, 1992. 2. Kruse, T. A., Bolund, L., Grzeschik, K. -H., Ropers, H. H., Olsen, J., Sjostrom, H., Noren, O. Assignment of the human aminopeptidase N (peptidase E) gene to chromosome 15q13-qter. FEBS Lett. 239: 305-308, 1988. 3. Look, A. T., Ashmun, R. A., Shapiro, L. H., Peiper, S. C. Human myeloid plasma membrane glycoprotein CD13 (gp150) is identical to aminopeptidase N. J. Clin. Invest. 83: 1299-1307, 1989.

NCBI AND UNIPROT INFORMATION

NCBI GI #	157266300
NCBI GeneID	290
NCBI Accession #	NP_001141.2
NCBI GenBank Nucleotide #	NM_001150.2

UniProt Accession #	P15144 ; Q16728 ; Q6GT90 ; Q8IUUK3 ; Q8IVH3 ; Q9UCE0
Molecular Weight	109,540 Da
NCBI Official Full Name	aminopeptidase N
NCBI Official Synonym Full Names	alanyl (membrane) aminopeptidase
NCBI Official Symbol	ANPEP
NCBI Official Synonym Symbols	APN; CD13; LAP1; P150; PEPN; GP150
NCBI Protein Information	aminopeptidase N; AP-M; AP-N; hAPN; aminopeptidase M; alanyl aminopeptidase; microsomal aminopeptidase; myeloid plasma membrane glycoprotein CD13
UniProt Protein Name	Aminopeptidase N
UniProt Gene Name	ANPEP
UniProt Synonym Gene Names	APN; CD13; PEPN; AP-N; hAPN; AP-M
UniProt Entry Name	AMPN_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/cd13-anpep-antibody-clone-5b9-western-blot-immunohistochemistry-elisa/19371>