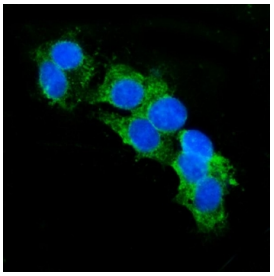
CD13 Antibody / Aminopeptidase N Antibody [clone 9G5] (RQ7896)

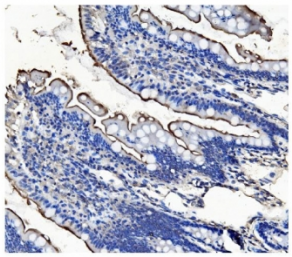
Catalog No.	Formulation	Size
RQ7896	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

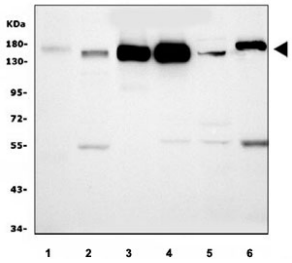
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Monkey
Format	Antigen affinity purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	9G5
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P15144
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence (FFPE): 5ug/ml
Limitations	This CD13 Antibody / Aminopeptidase N Antibody is available for research use only.



CD13 Antibody in Human HepG2 Hepatocellular Carcinoma Cells IF. Immunofluorescence staining of FFPE human HepG2 hepatocellular carcinoma cells with CD13 Antibody / Aminopeptidase N Antibody clone 9G5 (green) and DAPI nuclear stain (blue). Heat-induced epitope retrieval was performed by steaming the sample in pH 6 citrate buffer for 20 min. This CD13 Antibody demonstrates detection of aminopeptidase N in human HepG2 cells.



CD13 Antibody in Rat Intestine IHC. Immunohistochemistry staining of FFPE rat intestine tissue with CD13 Antibody / Aminopeptidase N Antibody clone 9G5. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling prior to testing. This CD13 Antibody demonstrates detection of aminopeptidase N in rat intestinal tissue.



CD13 Antibody in Human, Monkey, Rat and Mouse WB. Western blot testing of 1) human THP-1, 2) human PC-3, 3) monkey kidney, 4) rat kidney, 5) rat liver and 6) mouse kidney lysates with CD13 Antibody / Aminopeptidase N Antibody clone 9G5. CD13 is expected at approximately 110-150 kDa depending on glycosylation level. The broad molecular weight range is consistent with the extensive glycosylation of mature CD13. This CD13 Antibody demonstrates detection of aminopeptidase N across human, monkey, rat and mouse samples.

Description

CD13 Antibody / Aminopeptidase N Antibody recognizes CD13, a membrane-associated zinc-dependent metalloprotease encoded by the ANPEP gene. Also known as aminopeptidase N (APN), alanyl aminopeptidase and membrane alanyl aminopeptidase, CD13 removes N-terminal amino acids from peptides and contributes to peptide processing and metabolism. The protein is widely distributed and is found on intestinal and renal epithelial cells as well as several hematopoietic cell populations, including monocytes, granulocytes and their progenitors.

CD13 is an established cell surface marker of the myeloid lineage and is commonly studied in normal myeloid differentiation and hematologic malignancies. Expression is frequently observed in acute myeloid leukemia and other myeloid neoplasms. Beyond its value as a cellular marker, aminopeptidase N participates in diverse biological processes through its ectopeptidase activity and additional functions associated with cell adhesion, migration, angiogenesis and immune regulation. Its broad tissue distribution has also made ANPEP/CD13 relevant to studies of epithelial biology, cancer and the tumor microenvironment.

Structurally, CD13 is a type II transmembrane glycoprotein with a large extracellular catalytic domain containing the zinc-binding motif characteristic of metalloproteases. Extensive glycosylation contributes to an apparent molecular weight of approximately 110-150 kDa, with variation depending on glycosylation state. This biochemical characteristic is important when evaluating CD13 by Western blot and helps explain its relatively broad molecular weight range.

This mouse monoclonal antibody was generated using recombinant human CD13 protein corresponding to amino acids 148-966. It is validated for Western blot, immunohistochemistry and immunofluorescence and demonstrates reactivity with human, mouse, rat and monkey samples. NSJ Bioreagents provides this CD13 Antibody for research into ANPEP expression, peptide metabolism, myeloid biology and related cellular processes. An Aminopeptidase N Antibody can support studies examining the expression and distribution of this multifunctional cell surface metalloprotease.

For additional information and reagents targeting this cell surface metalloprotease and myeloid marker, visit our CD13 Antibody / Myeloid Cell Marker page.

Application Notes

Optimal dilution of the CD13 Antibody / Aminopeptidase N Antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids D148-S966) was used as the immunogen for the CD13 antibody.

Storage

After reconstitution, the CD13 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

CD13 antibody, aminopeptidase N antibody, ANPEP antibody, alanyl aminopeptidase antibody, membrane alanyl aminopeptidase antibody, APN antibody

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