

Store at
-20C
#13721**CD13/APN (E1Y7U) Rabbit mAb**

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 140-160	Source/Isotype: Rabbit IgG	UniProt ID: #P15144	Entrez-Gene Id: 290
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

CD13/APN (E1Y7U) Rabbit mAb recognizes endogenous levels of total CD13/APN protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg90 of human CD13/APN protein.

Background

Aminopeptidase N (APN, CD13) is a widely expressed, membrane-bound proteolytic enzyme that breaks down peptides during digestion, cleaves cell surface antigens during antigen presentation, and acts as a receptor for human viruses, including several coronaviruses. This multifunctional protein is implicated in the regulation of many biological processes, including angiogenesis, cell proliferation, cell migration, inflammation and immune response (1,2). APN was originally identified as the cell surface antigen CD13, which is expressed in myeloid lineage hematopoietic cells and myeloid leukemia (3). Identified substrates of aminopeptidase N include the angiotensin I-III peptide hormones, the opioid peptide met-enkephalin, and cytokines MCP-1 and MIP-1 (4). Abnormal APN protein expression is seen in various forms of cancer, with high APN expression associated with poor survival in colon cancer and non-small cell lung cancer and silenced APN expression related to poor prognosis in prostate cancer (5-7).

Background References

1. Luan, Y. and Xu, W. (2007) *Curr Med Chem* 14, 639-47.
2. Mina-Osorio, P. (2008) *Trends Mol Med* 14, 361-71.
3. Look, A.T. et al. (1989) *J Clin Invest* 83, 1299-307.
4. Bauvois, B. (2004) *Oncogene* 23, 317-329.
5. Hashida, H. et al. (2002) *Gastroenterology* 122, 376-86.
6. Tokuhara, T. et al. (2006) *Clin Cancer Res* 12, 3971-8.
7. Sørensen, K.D. et al. (2013) *Br J Cancer* 108, 420-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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