Revision 1

#13721 Store at -20C

CD13/APN (E1Y7U) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

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

Product Usage Information

Application	Dilution
Western Blotting	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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Limited Uses

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.