

# CD13 (H-8): sc-166105

## BACKGROUND

CD13, or aminopeptidase N, is a type II transmembrane glycoprotein that is expressed on most cells of myeloid origin, including monocytes, basophils, eosinophils, neutrophils and myeloid leukemias. CD13 is also found on certain epithelial cells, fibroblasts and osteoclasts. CD13 acts as a zinc-binding metalloprotease that plays a role in digestion and may function in the inactivation of some regulatory peptides such as enkephalins. CD13 may play a role in the invasion of cancer cells by enhancing their invasive capacity and metastatic behavior. The activity of CD13 can be inactivated using specific inhibitors that evoke apoptosis of CD13-positive cancer cells. Basic fibroblast growth factor (bFGF) expression upregulates CD13 expression in human melanoma cells by activating both the myeloid and the epithelial CD13 promoter.

## CHROMOSOMAL LOCATION

Genetic locus: ANPEP (human) mapping to 15q26.1.

## SOURCE

CD13 (H-8) is a mouse monoclonal antibody raised against amino acids 668-967 of CD13 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD13 (H-8) is available conjugated to agarose (sc-166105 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166105 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166105 PE), fluorescein (sc-166105 FITC), Alexa Fluor<sup>®</sup> 488 (sc-166105 AF488), Alexa Fluor<sup>®</sup> 546 (sc-166105 AF546), Alexa Fluor<sup>®</sup> 594 (sc-166105 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-166105 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-166105 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-166105 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

CD13 (H-8) is recommended for detection of CD13 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD13 siRNA (h): sc-29960, CD13 shRNA Plasmid (h): sc-29960-SH and CD13 shRNA (h) Lentiviral Particles: sc-29960-V.

Molecular Weight of human CD13: 150 kDa.

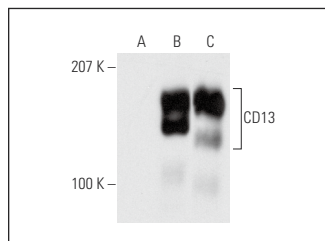
Molecular Weight of rat CD13: 120 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263 or CD13 (h): 293T Lysate: sc-116664.

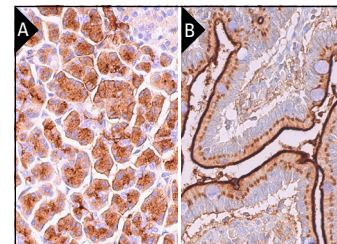
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



CD13 (H-8): sc-166105. Western blot analysis of CD13 expression in non-transfected 293T: sc-117752 (A), human CD13 transfected 293T: sc-116664 (B) and CCD-1064Sk (C) whole cell lysates.



CD13 (H-8): sc-166105. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing membrane and cytoplasmic staining of exocrine glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing apical membrane and cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

- McNally, A.K. and Anderson, J.M. 2015. Phenotypic expression in human monocyte-derived interleukin-4-induced foreign body giant cells and macrophages *in vitro*: dependence on material surface properties. *J. Biomed. Mater. Res. A* 103: 1380-1390.
- Salaga, M., et al. 2017. Systemic administration of sialorphan attenuates experimental colitis in mice via interaction with  $\mu$  and  $\kappa$  opioid receptors. *J. Crohns Colitis* 11: 988-998.
- Gesslbauer, B., et al. 2018. Unbiased identification of proteins covalently modified by complex mixtures of peroxidized lipids using a combination of electrophoretic mobility band shift with mass spectrometry. *Antioxidants* 7: 116.
- Nelli, R.K., et al. 2021. The betacoronavirus PHEV replicates and disrupts the respiratory epithelia and upregulates key pattern recognition receptor genes and downstream mediators, including IL-8 and IFN- $\lambda$ . *mSphere* 6: e0082021.
- Nelli, R.K., et al. 2022. Distribution of coronavirus receptors in the swine respiratory and intestinal tract. *Vet. Sci.* 9: 500.
- Ogawa, Y., et al. 2024. Distinguishing two distinct types of salivary extracellular vesicles: a potential tool for understanding their pathophysiological roles. *Front. Mol. Biosci.* 11: 1278955.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.