

CD13 (C-17): sc-6995

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.

REFERENCES

1. Bradstock, K.F., et al. 1985. Human myeloid differentiation antigens identified by monoclonal antibodies: expression on leukemic cells. *Pathology* 17: 392-399.
2. Bradstock, K.F., et al. 1985. Myeloid progenitor surface antigen identified by monoclonal antibody. *Br. J. Haematol.* 61: 11-20.

CHROMOSOMAL LOCATION

Genetic locus: ANPEP (human) mapping to 15q26.1; Anpep (mouse) mapping to 7 D3.

SOURCE

CD13 (C-17) is available as either goat (sc-6995) or rabbit (sc-6995-R) affinity purified polyclonal antibody raised against a peptide mapping at the C-terminus of CD13 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6995 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as fluorescein conjugate for immunofluorescence, sc-6995 FITC, 200 µg/1 ml.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

CD13 (C-17) is recommended for detection of CD13 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

CD13 (C-17) is also recommended for detection of CD13 in additional species, including canine.

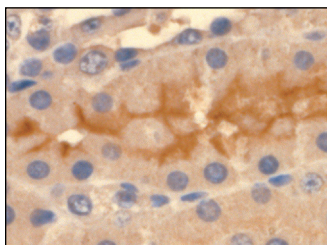
Suitable for use as control antibody for CD13 siRNA (h): sc-29960, CD13 siRNA (m): sc-37242, CD13 shRNA Plasmid (h): sc-29960-SH, CD13 shRNA Plasmid (m): sc-37242-SH, CD13 shRNA (h) Lentiviral Particles: sc-29960-V and CD13 shRNA (m) Lentiviral Particles: sc-37242-V.

Molecular Weight of human CD13: 150 kDa.

Molecular Weight of rat CD13: 120 kDa

Positive Controls: CCD-1064SK cell lysate: sc-2263 or rat kidney extract: sc-2394.

DATA



CD13 (C-17): sc-6995. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney tissue showing membrane localization.

SELECT PRODUCT CITATIONS

1. Babusiak, M., et al. 2007. Native proteomic analysis of protein complexes in murine intestinal brush border membranes. *Proteomics* 7: 121-129.
2. Allen, C.E., et al. 2010. Cell-specific gene expression in Langerhans cell histiocytosis lesions reveals a distinct profile compared with epidermal Langerhans cells. *J. Immunol.* 184: 4557-4567.
3. Pei, K.L., et al. 2012. CIP-13F, a novel aminopeptidase N (APN/CD13) inhibitor, inhibits Lewis lung carcinoma growth and metastasis in mice. *Cancer Chemother. Pharmacol.* 69: 1029-1038.



Try **CD13 (H-8): sc-166105** or **CD13 (3D8): sc-13536**, our highly recommended monoclonal alternatives to CD13 (C-17).