

CD13 (h): 293T Lysate: sc-116664

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.
3. McMichael, A.J., et al, eds. 1987. *Leucocyte Typing III*. Oxford: Oxford University Press.
4. Favaloro, E.J., et al. 1988. Further characterization of human Myeloid antigens (gp160, 95; gp150; gp67): investigation of epitopic heterogeneity and non-haemopoietic distribution using panels of monoclonal antibodies belonging to CD11b, *Br. J. Haematol.* 69: 163-171.
5. Knapp, W., et al, eds. 1989. *Leucocyte Typing IV. White Cell Differentiation Antigens*. New York: Oxford University Press.
6. Favaloro, E.J. 1991. CD13 ("gp150"; aminopeptidase-N): co-expression on endothelial and haemopoietic cells with conservation of functional activity. *Immunol. Cell Biol.* 69: 253-260.
7. Favaloro, E.J., et al. 1993. The hepatobiliary disease marker serum alanine aminopeptidase predominantly comprises an isoform of the haematological Myeloid differentiation antigen and leukaemia marker CD13/gp150. *Clin. Chim. Acta* 220: 81-90.
8. Favaloro, E.J., et al. 1993. CD13 (GP150; aminopeptidase-N): predominant functional activity in blood is localized to plasma and is not cell-surface associated. *Exp. Hematol.* 21: 1695-1701.

CHROMOSOMAL LOCATION

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

PRODUCT

CD13 (h): 293T Lysate represents a lysate of human CD13 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

CD13 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD13 antibodies. Recommended use: 10-20 µl per lane.

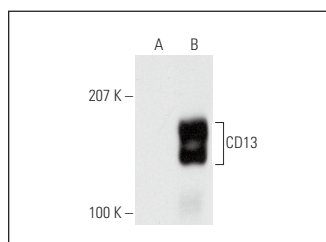
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CD13 (H-8): sc-166105 is recommended as a positive control antibody for Western Blot analysis of enhanced human CD13 expression in CD13 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

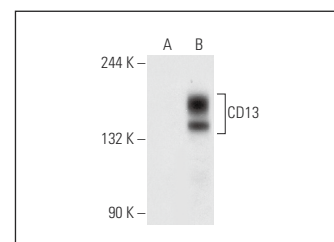
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



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



CD13 (A-5): sc-166270. Western blot analysis of CD13 expression in non-transfected: sc-117752 (A) and human CD13 transfected: sc-116664 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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