

CD67 (h): 293T Lysate: sc-175243

BACKGROUND

Carcinoembryonic antigen-related cell adhesion molecule 8, also designated CD67, CD66b or nonspecific cross-reacting antigen (NCA-95), belongs to the human carcinoembryonic antigen (CEA) family. The CD67 antigen is encoded by the CEACAM8 (CGM6) gene, which is exclusively expressed in neutrophils and eosinophils. In neutrophils, the CEACAM8 gene is primarily detected in the secondary granules within the cytoplasm, but it can also be found in lower amounts on the plasma membrane. The amount of CD67 on the plasma membrane is upregulated upon granulocyte activation. CD67 has been located on the surface of neutrophilic and eosinophilic granulocytes at late stages of differentiation. It exhibits heterophilic cell adhesion properties with CD66c, which is coexpressed with CD67 in granulocytes. CD67, which is attached to the membrane by a GPI-anchor, is expressed in leukocytes of chronic myeloid leukemia patients and bone marrow and in granulocytes in the spleen, thymus and lungs.

REFERENCES

1. Buchegger, F., Schreyer, M., Carrel, S. and Mach, J.P. 1984. Monoclonal antibodies identify a CEA crossreacting antigen of 95 kD (NCA-95) distinct in antigenicity and tissue distribution from the previously described NCA of 55 kD. *Int. J. Cancer* 33: 643-649.
2. Arakawa, F., Kuroki, M., Misumi, Y., Oikawa, S., Nakazato, H. and Matsuoka, Y. 1990. Characterization of a cDNA clone encoding a new species of the nonspecific cross-reacting antigen (NCA), a member of the CEA gene family. *Biochem. Biophys. Res. Commun.* 166: 1063-1071.
3. Thompson, J.A., Grunert, F. and Zimmermann, W. 1991. Carcinoembryonic antigen gene family: molecular biology and clinical perspectives. *J. Clin. Lab. Anal.* 5: 344-366.
4. Felzmann, T., Gadd, S., Majdic, O., Maurer, D., Petera, P., Smolen, J. and Knapp, W. 1991. Analysis of function-associated receptor molecules on peripheral blood and synovial fluid granulocytes from patients with rheumatoid and reactive arthritis. *J. Clin. Immunol.* 11: 205-212.
5. Kuroki, M., Matsuo, Y., Kinugasa, T. and Matsuoka, Y. 1992. Augmented expression and release of nonspecific cross-reacting antigens (NCAs), members of the CEA family, by human neutrophils during cell activation. *J. Leukoc. Biol.* 52: 551-557.
6. Hauck, W., Nedellec, P., Turbide, C., Stanners, C.P., Barnett, T.R. and Beauchemin, N. 1994. Transcriptional control of the human biliary glycoprotein gene, a CEA gene family member down-regulated in colorectal carcinomas. *Eur. J. Biochem.* 223: 529-541.
7. Yamanaka, T., Kuroki, M., Kinugasa, T., Matsuo, Y. and Matsuoka, Y. 1996. Preparation and characterization of two human carcinoembryonic antigen family proteins of neutrophils, CD66b and c, in silkworm larvae. *Protein Expr. Purif.* 7: 438-446.

CHROMOSOMAL LOCATION

Genetic locus: CEACAM8 (human) mapping to 19q13.2.

RESEARCH USE

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

PRODUCT

CD67 (h): 293T Lysate represents a lysate of human CD67 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CD67 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD67 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.

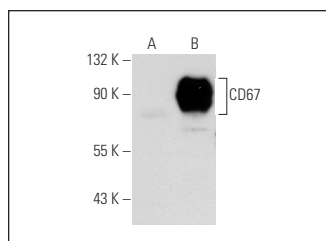
CD67 (GM2H6): sc-101383 is recommended as a positive control antibody for Western Blot analysis of enhanced human CD67 expression in CD67 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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



CD67 (GM2H6): sc-101383. Western blot analysis of CD67 expression in non-transfected: sc-117752 (A) and human CD67 transfected: sc-175243 (B) 293T whole cell lysates.

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.

PROTOCOLS

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