

CD67 (G10F5): sc-53673

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., et al. 1984. Monoclonal antibodies identify a CEA cross-reacting 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., et al. 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., et al. 1991. Carcinoembryonic antigen gene family: molecular biology and clinical perspectives. *J. Clin. Lab. Anal.* 5: 344-366.
4. Felzmann, T., et al. 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., et al. 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., et al. 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., et al. 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.

SOURCE

CD67 (G10F5) is a mouse monoclonal antibody raised against CD67 of human origin.

PRODUCT

Each vial contains 100 µg IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CD67 (G10F5) is recommended for detection of CD67 of human origin by Western Blotting (starting dilution 1:200, 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) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD67 siRNA (h): sc-45465, CD67 shRNA Plasmid (h): sc-45465-SH and CD67 shRNA (h) Lentiviral Particles: sc-45465-V.

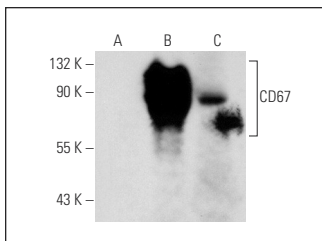
Molecular Weight of CD67: 95 kDa.

Positive Controls: CD67 (h): 293T Lysate: sc-175243 or human platelet extract: sc-363773.

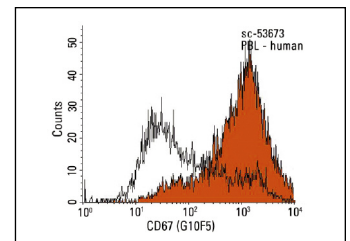
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgM-HRP: sc-2064 (dilution range: 1:500-1:5,000), TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L PLUS-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgM-FITC: sc-2082 (dilution range: 1:100-1:400) or goat anti-mouse IgM-TR: sc-2983 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CD67 (G10F5): sc-53673. Western blot analysis of CD67 expression in non-transfected: sc-117752 (A), human CD67 transfected: sc-175243 (B) 293T whole cell lysates and human platelet extract (C).



CD67 (G10F5): sc-53673. Indirect FCM analysis of human peripheral blood leukocytes stained with CD67 (G10F5), followed by PE-conjugated goat anti-mouse IgM: sc-3768. Black line histogram represents the isotype control, normal mouse IgM: sc-3881.

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.