

CD67 (GM2H6): sc-101383

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 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., 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 (GM2H6) is a mouse monoclonal antibody genetically immunized with cDNA encoding CD67 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD67 (GM2H6) is available conjugated to agarose (sc-101383 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101383 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101383 PE), fluorescein (sc-101383 FITC), Alexa Fluor® 488 (sc-101383 AF488), Alexa Fluor® 546 (sc-101383 AF546), Alexa Fluor® 594 (sc-101383 AF594) or Alexa Fluor® 647 (sc-101383 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-101383 AF680) or Alexa Fluor® 790 (sc-101383 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

CD67 (GM2H6) 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)], flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

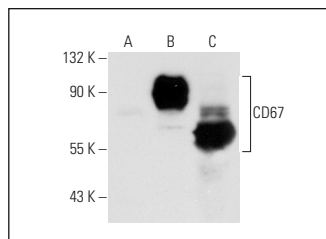
Molecular Weight of CD67: 95 kDa.

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

RECOMMENDED 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



CD67 (GM2H6): sc-101383. 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 tissue extract (C).

RESEARCH USE

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