# SANTA CRUZ BIOTECHNOLOGY, INC.

# CD55 (67): sc-53207



## BACKGROUND

CD55, also called decay accelerating factor (DAF), is a GPI-anchored single chain glycoprotein. CD55 may play a role in protecting cells from complement-mediated lysis by preventing the amplification steps of the complement cascade. CD55 functions to prevent the assembly of C3 convertase or to accelerate the disassembly of preformed convertase, which blocks formation of the membrane attack complex. CD55 is expressed on cells in contact with serum, including hematopoietic and many non-hematopoietic cells.

#### REFERENCES

- Seya, T., Matsumoto, M., Hara, T., Hatanaka, M., Masoaka, T. and Akedo, H. 1994. Distribution of C3-step regulatory proteins of the complement system, CD35 (CR1), CD46 (MCP), and CD55 (DAF) in hematological malignancies. Leuk. Lymphoma 12: 395-400.
- Nicholson-Weller, A. and Wang, C.E. 1994. Structure and function of decay accelerating factor CD55. J. Lab. Clin. Med. 123: 485-491.
- Bjorge, L., Jensen, T.S. and Matre, R. 1996. Characterization of the complement-regulatory proteins decay-accelerating factor (DAF, CD55) and membrane cofactor protein (MCP, CD46) on a human colonic adenocarcinoma cell line. Cancer Immunol. Immunother. 42: 185-192.
- Spiller, O.B., Moretto, G., Kim, S.U., Morgan, B.P. and Devine, D.V. 1996. Complement expression on astrocytes and astrocytoma cell lines: failure of complement regulation at the C3 level correlates with very low CD55 expression. J. Neuroimmunol. 71: 97-106.
- van Denderen, B.J., Pearse, M.J., Katerelos, M., Nottle, M.B., Du, Z.T., Aminian, A., Adam, W.R., Shenoy-Scaria, A., Lublin, D.M., Shinkel, T.A. and d'Apice, A.J. 1996. Expression of functional decay-accelerating factor (CD55) in transgenic mice protects against human complement-mediated attack. Transplantation 61: 582-588.
- Kuttner-Kondo, L., Medof, M.E., Brodbeck, W. and Shoham, M. 1996. Molecular modeling and mechanism of action of human decay-accelerating factor. Protein Eng. 9: 1143-1149.
- 7. Liszewski, M.K., Farries, T.C., Lublin, D.M., Rooney, I.A. and Atkinson, J.P. 1996. Control of the complement system. Adv. Immunol. 61: 201-283.

### CHROMOSOMAL LOCATION

Genetic locus: CD55 (human) mapping to 1q32.2; Cd55 (mouse) mapping to 1 E4.

#### SOURCE

CD55 (67) is a mouse monoclonal antibody raised against fibronectin purified monocytes of human origin.

#### PRODUCT

Each vial contains 200  $\mu g~lg G_1$  in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **RESEARCH USE**

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

#### **APPLICATIONS**

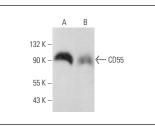
CD55 (67) is recommended for detection of CD55 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

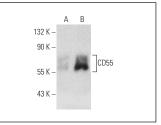
Suitable for use as control antibody for CD55 siRNA (h): sc-35012, CD55 siRNA (m): sc-35013, CD55 shRNA Plasmid (h): sc-35012-SH, CD55 shRNA Plasmid (m): sc-35013-SH, CD55 shRNA (h) Lentiviral Particles: sc-35012-V and CD55 shRNA (m) Lentiviral Particles: sc-35013-V.

Molecular Weight of CD55: 70 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, HeLa whole cell lysate: sc-2200 or CD55 (m): 293T Lysate: sc-119111.

#### DATA





CD55 (67): sc-53207. Western blot analysis of CD55 expression in HeLa ( $\bf A$ ) and HEL 92.1.7 ( $\bf B$ ) whole cell lysates.

CD55 (67): sc-53207. Western blot analysis of CD55 expression in non-transfected: sc-117752 (**A**) and mouse CD55 transfected: sc-119111 (**B**) 293T whole cell lysates.

### **STORAGE**

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

#### PROTOCOLS

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



See **CD55 (NaM16-4D3): sc-51733** for CD55 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor<sup>®</sup> 488, 546, 594, 647, 680 and 790.