SANTA CRUZ BIOTECHNOLOGY, INC.

CD58 (HCD58): sc-53670

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CD2 (also designated E-rosette receptor) interacts through its amino-terminal domain with the extracellular domain of CD58 (also designated CD2 ligand) to mediate cell adhesion. CD2/CD58 binding can enhance antigen-specific T cell activation. CD2 is a transmembrane glycoprotein that is expressed on T lymphocytes, NK cells and thymocytes, as well as on mouse B cells and rat splenic macrophages. CD58 is a heavily glycosylated protein with a broad tissue distribution in hematopoietic and other cells, including endothelium.

REFERENCES

1. Sanders, M.E., et al. 1988. Human memory T lymphocytes express increased levels of three cell adhesion molecules (LFA-3, CD2, and LFA-1) and three other molecules (UCHL1, CDw29, and Pgp-1) and have enhanced IFN-γ production. J. Immunol. 140: 1401-1407.
2. Beyers, A.D., et al. 1989. Activation of T lymphocytes via monoclonal antibodies against rat cell surface antigens with particular reference to CD2 antigen. Immunol. Rev. 111: 59-77.
3. Moingeon, P., et al. 1989. The structural biology of CD2. Immunol. Rev. 111: 111-144.
4. Bierer, B.E. and Burakoff, S.E. 1989. T lymphocyte activation: the biology and function of CD2 and CD4. Immunol. Rev. 111: 267-294.
5. Smith, M.E. and Thomas, J.A. 1990. Cellular expression of lymphocyte function associated antigens and the intercellular adhesion molecule-1 in normal tissue. J. Clin. Pathol. 43: 893-900.
6. Dustin, M.L. and Springer, T.A. 1991. Role of lymphocyte adhesion receptors in transient interactions and cell locomotion. Annu. Rev. Immunol. 9: 27-66.
7. Davis, S.J. and van der Merwe, P.A. 1996. The structure and ligand interactions of CD2: implications for T cell function. Immunol. Today 17: 177-187.
8. Kishimoto T., et al., Eds. 1998. Leukocyte Typing VI: White Cell Differentiation Antigens. New York, New York: Garland Publishing Inc.

CHROMOSOMAL LOCATION

Genetic locus: CD58 (human) mapping to 1p13.1.

SOURCE

CD58 (HCD58) is a mouse monoclonal antibody raised against CD58 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

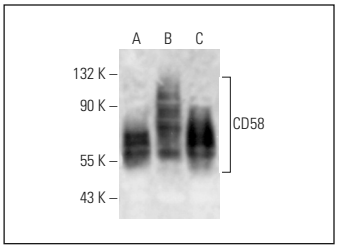
CD58 (HCD58) is recommended for detection of CD58 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for CD58 siRNA (h): sc-42799, CD58 shRNA Plasmid (h): sc-42799-SH and CD58 shRNA (h) Lentiviral Particles: sc-42799-V.

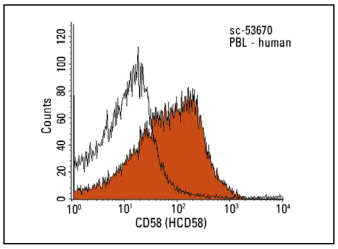
Molecular Weight of CD58: 65-70 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, human PBL whole cell lysate or Raji whole cell lysate: sc-364236.

DATA



CD58 (HCD58): sc-53670. Western blot analysis of CD58 expression in HeLa (**A**), human PBL (**B**) and Raji (**C**) whole cell lysates.



CD58 (HCD58): sc-53670. Indirect FCM analysis of human peripheral blood leukocytes stained with CD58 (HCD58), followed by PE-conjugated goat anti-mouse IgG_1: sc-3764. Black line histogram represents the isotype control, normal mouse IgG_1: sc-3877.

PROTOCOLS

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