

CD58 (TS2/9.1.4.3): sc-20009

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

- 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.
- 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.
- Moingeon, P., et al. 1989. The structural biology of CD2. *Immunol. Rev.* 111: 111-144.
- Bierer, B.E. and Burakoff, S.E. 1989. T lymphocyte activation: the biology and function of CD2 and CD4. *Immunol. Rev.* 111: 267-294.
- 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.
- 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.
- 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.

CHROMOSOMAL LOCATION

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

SOURCE

CD58 (TS2/9.1.4.3) is a mouse monoclonal antibody raised against cytolytic T lymphocytes of human origin.

PRODUCT

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

CD58 (TS2/9.1.4.3) is available conjugated to agarose (sc-20009 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-20009 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-20009 PE), fluorescein (sc-20009 FITC), Alexa Fluor[®] 488 (sc-20009 AF488), Alexa Fluor[®] 546 (sc-20009 AF546), Alexa Fluor[®] 594 (sc-20009 AF594) or Alexa Fluor[®] 647 (sc-20009 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-20009 AF680) or Alexa Fluor[®] 790 (sc-20009 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CD58 (TS2/9.1.4.3) 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 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and flow cytometry (1 μ g per 1×10^6 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.

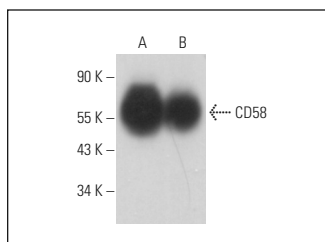
Molecular Weight of CD58: 65-70 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, Raji whole cell lysate: sc-364236 or Ramos cell lysate: sc-2216.

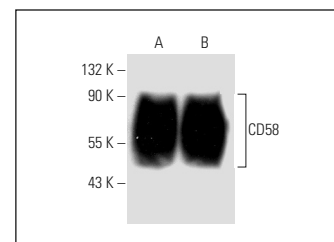
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



CD58 (TS2/9.1.4.3): sc-20009. Western blot analysis of CD58 expression in Raji (A) and Ramos (B) whole cell lysates.



CD58 (TS2/9.1.4.3): sc-20009. Western blot analysis of CD58 expression in CCRF-CEM (A) and Raji (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Xie, D., et al. 2005. Oncogenic role of clusterin overexpression in multi-stage colorectal tumorigenesis and progression. *World J. Gastroenterol.* 11: 3285-3289.
- Xie, D., et al. 2005. Up-regulated expression of cytoplasmic clusterin in human ovarian carcinoma. *Cancer* 103: 277-283.
- He, L.R., et al. 2009. Clusterin as a predictor for chemoradiotherapy sensitivity and patient survival in esophageal squamous cell carcinoma. *Cancer Sci.* 100: 2354-2360.

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.