

CD2 (AT37): sc-13531

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 peripheral blood 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. Interaction between CD2 and its counterreceptor LFA3 (CD58) on opposing cells optimizes immune system recognition, thereby facilitating communication between helper T lymphocytes and antigen-presenting cells, as well as between cytolytic effectors and target cells.

REFERENCES

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4. Shih, N.Y., et al. 1999. Congenital nephrotic syndrome in mice lacking CD2-associated protein. *Science* 286: 312-315.
5. Guan, F., et al. 2006. Autocrine VEGF-A system in podocytes regulates podocin and its interaction with CD2AP. *Am. J. Physiol. Renal Physiol.* 291: F422-F428.
6. Fan, Q., et al. 2006. The relationship among nephrin, podocin, CD2AP and α -actinin might not be a true "interaction" in podocyte. *Kidney Int.* 69: 1207-1215.
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8. Konishi, H., et al. 2006. CFBP is a novel tyrosine-phosphorylated protein that might function as a regulator of CIN85/CD2AP. *J. Biol. Chem.* 281: 28919-28931.
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CHROMOSOMAL LOCATION

Genetic locus: Cd2 (mouse) mapping to 3 F2.2.

SOURCE

CD2 (AT37) is a rat monoclonal antibody raised against the extracellular domain of CD2 of mouse 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 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD2 (AT37) is available conjugated to either phycoerythrin (sc-13531 PE) or fluorescein (sc-13531 FITC), 200 μ g/ml, for IF, IHC(P) and FCM.

APPLICATIONS

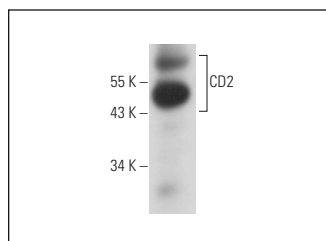
CD2 (AT37) is recommended for detection of CD2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for CD2 siRNA (m): sc-29971, CD2 shRNA Plasmid (m): sc-29971-SH and CD2 shRNA (m) Lentiviral Particles: sc-29971-V.

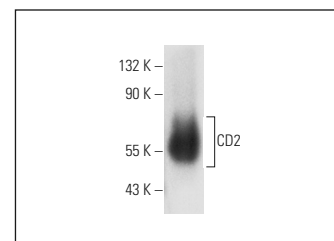
Molecular Weight of CD2: 50 kDa.

Positive Controls: CTLL-2 cell lysate: sc-2242, mouse thymus extract: sc-2406 or rat thymus extract: sc-2401.

DATA



CD2 (AT37): sc-13531. Western blot analysis of CD2 expression in rat thymus tissue extract.



CD2 (AT37): sc-13531. Western blot analysis of CD2 expression in mouse thymus tissue extract.

RESEARCH USE

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

PROTOCOLS

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