CD2 (h): 293T Lysate: sc-114105



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 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

- 1. Shaw, A.S., et al. 1997. Making the T cell receptor go the distance: a topological view of T cell activation. Immunity 6: 361-369.
- 2. Dustin, M.L., et al. 1998. A novel adaptor protein orchestrates receptor patterning and cytoskeletal polarity in T cell contacts. Cell 94: 667-677.
- Nishizawa, K., et al. 1998. Identification of a proline-binding motif regulating CD2-triggered T lymphocyte activation. Proc. Natl. Acad. Sci. USA 95: 14897-14902.
- Shih, N.Y., et al. 1999. Congenital nephrotic syndrome in mice lacking CD2-associated protein. Science 286: 312-315.
- Guan, F., et al. 2006. Autocrine VEGF-A system in podocytes regulates podocin and its interaction with CD2AP. Am. J. Physiol. Renal Physiol. 291: F422-428.
- 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.
- 7. Xia, W., et al. 2006. Differential interactions between transforming growth factor $\beta 3/\beta$ RI, TAB1 and CD2AP disrupt blood-testis barrier and Sertoligerm cell adhesion. J. Biol. Chem. 281: 16799-16813.
- 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.
- 9. Tossidou, I., et al. 2007. CD2AP/CIN85 balance determines receptor tyrosine kinase signaling response in podocytes. J. Biol. Chem. 282: 7457-7464.

CHROMOSOMAL LOCATION

Genetic locus: CD2 (human) mapping to 1p13.1.

PRODUCT

CD2 (h): 293T Lysate represents a lysate of human CD2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20 $^{\circ}$ C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

CD2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD2 antibodies. Recommended use: 10-20 µl per lane.

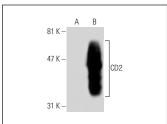
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-tranfected 293T cells.

CD2 (MT910): sc-19638 is recommended as a positive control antibody for Western Blot analysis of enhanced human CD2 expression in CD2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA





CD2 (MT910): sc-19638. Western blot analysis of CD2 expression in non-transfected: sc-117752 (**A**) and human CD2 transfected: sc-114105 (**B**) 293T whole cell lysates.

CD2 (UMCD2): sc-65247. Western blot analysis of CD2 expression in non-transfected: sc-117752 (**A**) and human CD2 transfected: sc-114105 (**B**) 293T whole cell lysates

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.

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