SANTA CRUZ BIOTECHNOLOGY, INC.

CD6 (h): 293T Lysate: sc-115124

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CD6 is a type I transmembrane glycoprotein that is present on mature thymocytes, peripheral T cells and a subset of B cells. The CD6 glycoprotein is tyrosine phosphorylated during TCR-mediated T cell activation and the size difference between the CD6 forms is due in part to differences in phosphorylation state. CD6 protein contains a 24 amino acid signal sequence, 3 extracellular "scavenger receptor cysteine-rich" (SRCR) domains, a membrane-spanning domain and a 44 amino acid cytoplasmic domain. CD6 shows significant homology to CD5. CD6, which is also found in brain and B cell chronic lymphocytic leukemias, plays an important role in interactions of thymocytes with thymic epithelial cells. CD6 molecules can physically associate with the TCR/CD3 complex.

REFERENCES

1. Bazil, V., et al. 1989. Monoclonal antibodies against human leucocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102. Folia Biol. 35: 289-297.
2. Swack, J.A., et al. 1991. Biosynthesis and posttranslational modification of CD6, a T cell signal-transducing molecule. J. Biol. Chem. 266: 7137-7143.
3. Aruffo, A., et al. 1991. The lymphocyte glycoprotein CD6 contains a repeated domain structure characteristic of a new family of cell surface and secreted proteins. J. Exp. Med. 174: 949-952.
4. Singer, N.G., et al. 1996. Role of the CD6 glycoprotein in antigen-specific and autoreactive responses of cloned human T lymphocytes. Immunology 88: 537-543.
5. Gimferrer, I., et al. 2003. The accessory molecules CD5 and CD6 associate on the membrane of lymphoid T cells. J. Biol. Chem. 278: 8564-8571.
6. Castro, M.A., et al. 2003. OX52 is the rat homologue of CD6: evidence for an effector function in the regulation of CD5 phosphorylation. J. Leuk. Biol. 73: 183-190.
7. Hassan, N.J., et al. 2004. Frontline: Optimal T cell activation requires the engagement of CD6 and CD166. Eur. J. Immunol. 34: 930-940.
8. Gimferrer, I., et al. 2004. Relevance of CD6-mediated interactions in T cell activation and proliferation. J. Immunol. 173: 2262-2270.
9. Saifullah, M.K., et al. 2004. Expression and characterization of a novel CD6 ligand in cells derived from joint and epithelial tissues. J. Immunol. 173: 6125-6133.

CHROMOSOMAL LOCATION

Genetic locus: CD6 (human) mapping to 11q12.2.

PRODUCT

CD6 (h): 293T Lysate represents a lysate of human CD6 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

CD6 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD6 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-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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