CD5 (m): 293T Lysate: sc-119109



The Power to Question

BACKGROUND

CD5 (also designated Lyt-1) has been identified as a transmembrane glycoprotein that is expressed on 70% of normal peripheral blood lymphocytes and on virtually all T lymphocytes in thymus and peripheral blood. Activation of T cells through the T cell receptor (TCR) results in tyrosine phosphorylation of CD5, and the absence of CD5 renders T cells hyper-responsive to TCR-mediated activation. CD5 associates with the TCR/CD3- ζ chain and with the Src family kinase Lck p56. *In vitro* studies have shown a 10- to 15-fold increase in the kinase activity of Lck bound to CD5. The B cell antigen, CD72, serves as a receptor for CD5. The consequence of CD5 binding to its cognate receptor is still in question and likely plays a role in thymic selection.

REFERENCES

- Davies, A.A., et al. 1992. CD5 is phosphorylated on tyrosine after stimulation of the T cell antigen receptor complex. Proc. Natl. Acad. Sci. USA 89: 6368-6372.
- 2. Jamin, C., et al. 1993. Expression of CD5 and CD72 on T and B cell subsets in rheumatoid arthritis and Sjögren's syndrome. Clin. Exp. Immunol. 92: 245-250.
- Jones, M., et al. 1993. Detection of T and B cells in many animal species using cross-reactive anti-peptide antibodies. J. Immunol. 150: 5429-5435.
- Lydyard, P.M., et al. 1994. CD5+ B cells and the immune system. Immunol. Lett. 38: 159-166.
- Raab, M., et al. 1994. The T cell antigen CD5 acts as a receptor and substrate for the protein-tyrosine kinase p56lck. Mol. Cell. Biol. 14: 2862-2870.
- 6. Plater-Zyberk, C., et al. 1995. Anti-CD5 therapy decreases severity of established disease in Collagen Type II-induced arthritis in DBA/1 mice. Clin. Exp. Immunol. 98: 442-447.
- Ekerfelt, C., et al. 1995. CD5 expression on B cells may be an activation marker for secretion of anti-myelin antibodies in patients with polyneuropathy associated with monoclonal gammopathy. Clin. Exp. Immunol. 101: 346-350.
- 8. Tarakhovsky, A., et al. 1995. A role for CD5 in TCR-mediated signal transduction and thymocyte selection. Science 269: 535-537.
- Koskinen, R., et al. 1998. The structure of avian CD5 implies a conserved function. J. Immunol. 160: 4943-4950.

CHROMOSOMAL LOCATION

Genetic locus: Cd5 (mouse) mapping to 19 A.

PRODUCT

CD5 (m): 293T Lysate represents a lysate of mouse CD5 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

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.

APPLICATIONS

CD5 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CD5 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.

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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