SANTA CRUZ BIOTECHNOLOGY, INC.

# CD5 (Q-20): sc-6986

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

CD5 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


1. Davies, A.A., Ley, S.C. and Crumpton, M.J. 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., Lamour, A., Pennec, Y.L., Hirn, M., Le Goff, P. and Youinou, P. 1993. Expression of CD5 and CD72 on T and B cell subsets in rheumatoid arthritis and Sjogren's syndrome. Clin. Exp. Immunol. 92: 245-250.
3. Lydyard, P.M., Lamour, A., MacKenzie, L.E., Jamin, C., Mageed, R.A. and Youinou, P. 1993. CD5+ B cells and the immune system. Immunol. Lett. 38: 159-166.


## CHROMOSOMAL LOCATION

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

## SOURCE

CD5 (Q-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CD5 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6986 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CD5 (Q-20) is recommended for detection of CD5 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD5 siRNA (m): sc-35010, CD5 shRNA Plasmid (m): sc-35010-SH and CD5 shRNA (m) Lentiviral Particles: sc-35010-V.

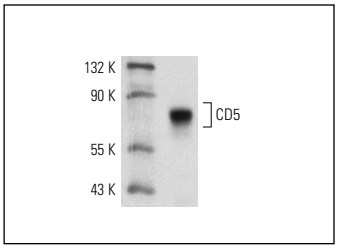
Molecular Weight of CD5: 67 kDa.

Positive Controls: M1 whole cell lysate: sc-364782, mouse PBL whole cell lysate or mouse spleen extract: sc-2391.

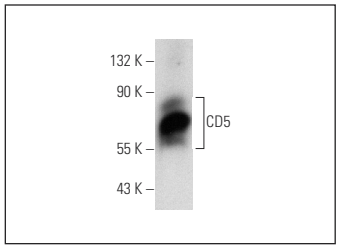
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA




CD5 (Q-20): sc-6986. Western blot analysis of CD5 expression in M1 whole cell lysate.




CD5 (Q-20): sc-6986. Western blot analysis of CD5 expression in mouse PBL whole cell lysate.

## SELECT PRODUCT CITATIONS


1. Azzam, H.S., DeJarnette, J.B., Huang, K., Emmons, R., Park, C.S., Sommers, C.L., El-Khoury, D., Shores, E.W. and Love, P.E. 2001. Fine tuning of TCR signaling by CD5. J. Immunol. 166: 5464-5472.


## 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.

## PROTOCOLS

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