

# CD5 (H-300): sc-20920

## BACKGROUND

CD5 has been identified as a 67 kDa 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- $\zeta$  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., 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 Sjogren's syndrome. *Clin. Exp. Immunol.* 92: 245-250.
3. Lydyard, P.M., et al. 1993. CD5<sup>+</sup> B cells and the immune system. *Immunol. Lett.* 38: 159-166.
4. Plater-Zyberk, C., et al. 1994. Anti-CD5 therapy decreases severity of established disease in collagen type II induced arthritis in DBA/1 mice. *Clin. Exp. Immunol.* 98: 442-447.

## CHROMOSOMAL LOCATION

Genetic locus: CD5 (human) mapping to 11q12.2.

## SOURCE

CD5 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of CD5 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CD5 (H-300) is recommended for detection of CD5 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 (h): sc-35011, CD5 shRNA Plasmid (h): sc-35011-SH and CD5 shRNA (h) Lentiviral Particles: sc-35011-V.

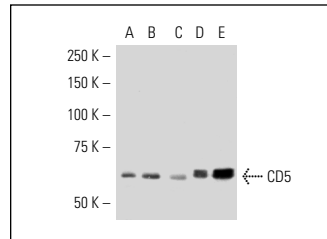
Molecular Weight of CD5: 67 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, Jurkat whole cell lysate: sc-2204 or Ramos cell lysate: sc-2216.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CD5 (H-300): sc-20920. Western blot analysis of CD5 expression in MOLT-4 (A), CCRF-CEM (B), Jurkat (C), Ramos (D) and Daudi (E) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Gary-Gouy, H., et al. 2007. Natural phosphorylation of CD5 in chronic lymphocytic leukemia B cells and analysis of CD5-regulated genes in a B cell line suggest a role for CD5 in malignant phenotype. *J. Immunol.* 179: 4335-4344.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **CD5 (UCH-T2): sc-1180** or **CD5 (H-3): sc-393087**, our highly recommended monoclonal alternatives to CD5 (H-300).