

# CD72 (H-224): sc-1706

## 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  $\zeta$  chain, and with the Src family kinase, Lck p56. The C-type lectin superfamily member CD72 is a cell surface negative regulator of B cell activation from the pro-B through the mature B cell stage. CD72 serves as a receptor for CD5. The ability of lymphocytes to respond to antigenic or mitogenic stimulation utilizes both positive and negative regulatory proteins that influence the threshold for responsiveness. The human CD72 gene maps to chromosome 9p13.3 and encodes a transmembrane glycoprotein that contains an immunoreceptor tyrosine-based inhibition motif (ITIM). Upon tyrosine phosphorylation, the CD72 ITIM recruits SH2-containing phosphatases such as SHP-1, resulting in downregulation of cell activation. CD72<sup>-/-</sup> mice contain hyperproliferative B cells.

## CHROMOSOMAL LOCATION

Genetic locus: Cd72 (mouse) mapping to 4 B1.

## SOURCE

CD72 (H-224) is a rabbit polyclonal antibody raised against amino acids 117-361 of CD72 of mouse origin.

## PRODUCT

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

Available as fluorescein conjugate for immunofluorescence, sc-1706 FITC, 200  $\mu$ g/1 ml.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

CD72 (H-224) is recommended for detection of CD72 of mouse and rat 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), immunohistochemistry (including paraffin-embedded sections) (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 CD72 siRNA (m): sc-35022, CD72 shRNA Plasmid (m): sc-35022-SH and CD72 shRNA (m) Lentiviral Particles: sc-35022-V.

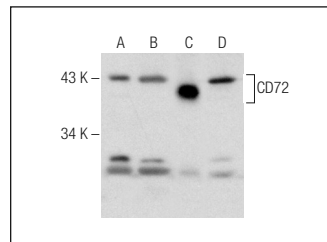
Molecular Weight of CD72: 45 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213, P388D1 whole cell lysate or PC-12 cell lysate: sc-2250.

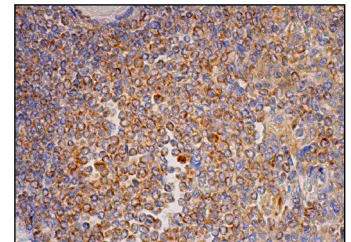
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



CD72 (H-224): sc-1706. Western blot analysis of CD72 expression in WEHI-231 (A), PC-12 (B), NFS-5 C-1 (C) and P388D1 (D) whole cell lysates.



CD72 (H-224): sc-1706. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing membrane and cytoplasmic staining of cells in white pulp and cells in red pulp.

## SELECT PRODUCT CITATIONS

- Doucet, M., et al. 2001. R-phycoerythrin-cyanine 5 tandem discerns CD72 polymorphism. *Immunogenetics* 53: 307-314.
- Maimets, T., et al. 2008. Activation of p53 by nutlin leads to rapid differentiation of human embryonic stem cells. *Oncogene* 27: 5277-5287.

## RESEARCH USE

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



Try **CD72 (G-5): sc-25265** or **CD72 (H-7): sc-7483**, our highly recommended monoclonal alternatives to CD72 (H-224).