

CD5 (UCH-T2): sc-1180

BACKGROUND

CD5 (also designated L γ t-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.

CHROMOSOMAL LOCATION

Genetic locus: CD5 (human) mapping to 11q12.2; Cd5 (mouse) mapping to 19 A.

SOURCE

CD5 (UCH-T2) is a mouse monoclonal antibody raised against human thymocytes/Sezary T cells.

PRODUCT

Each vial contains 200 μ g IgG γ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD5 (UCH-T2) is available conjugated to agarose (sc-1180 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-1180 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-1180 PE), fluorescein (sc-1180 FITC), Alexa Fluor® 488 (sc-1180 AF488), Alexa Fluor® 546 (sc-1180 AF546), Alexa Fluor® 594 (sc-1180 AF594) or Alexa Fluor® 647 (sc-1180 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-1180 AF680) or Alexa Fluor® 790 (sc-1180 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

CD5 (UCH-T2) is recommended for detection of CD5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for CD5 siRNA (h): sc-35011, CD5 siRNA (m): sc-35010, CD5 shRNA Plasmid (h): sc-35011-SH, CD5 shRNA Plasmid (m): sc-35010-SH, CD5 shRNA (h) Lentiviral Particles: sc-35011-V and CD5 shRNA (m) Lentiviral Particles: sc-35010-V.

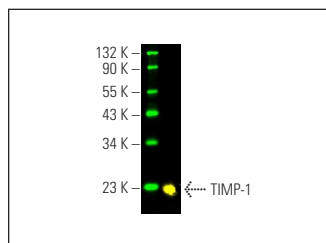
Molecular Weight of CD5: 67 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, MOLT-4 cell lysate: sc-2233 or Jurkat whole cell lysate: sc-2204.

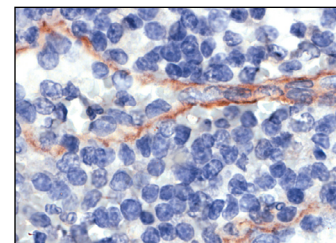
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



TIMP-1 (G-6) Alexa Fluor® 488: sc-365905 AF488. Direct fluorescent western blot analysis of TIMP-1 expression in human brain tissue extract. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 680: sc-516730.



CD5 (UCH-T2): sc-1180. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lymphoma showing membrane staining.

SELECT PRODUCT CITATIONS

- 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.
- Bautista-Pérez, R., et al. 2020. The role of P2X7 purinergic receptors in the renal inflammation associated with Angiotensin II-induced hypertension. *Int. J. Mol. Sci.* 21: 4041.

STORAGE

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

PROTOCOLS

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

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