

CD10 (97C5): sc-19993

BACKGROUND

CD10, also called the common acute lymphoblastic leukemia antigen (CALLA) and neutral endopeptidase (NEP), is a type II integral membrane glycoprotein. CD10 acts as a zinc metalloprotease that cleaves a variety of biologically active peptides including angiotensins I and II. It is expressed on early B and T lymphoid precursors, B blasts, some granulocytes, bone marrow stromal cells and certain epithelial cells including some tumor cell lines. CD10 is used as a marker of common acute lymphocytic leukemias and some lymphomas.

REFERENCES

- Horejsi, V., et al. 1988. Monoclonal antibodies against human leucocyte antigens. II. Antibodies against CD45 (T200), CD3 (T3), CD43, CD10 (CALLA), transferrin receptor (T9), a novel broadly expressed 18 kDa antigen (MEM-43) and a novel antigen of restricted expression (MEM-74). *Folia Biol.* 34: 23-34.
- Shipp, M.A., et al. 1993. Hematopoietic differentiation antigens that are membrane-associated enzymes: cutting is the key! *Blood* 82: 1052-1070.
- Lu, B., et al. 1995. Neutral endopeptidase modulation of septic shock. *J. Exp. Med.* 181: 2271-2275.
- Kalled, S.L., et al. 1995. The distribution of CD10 (NEP 24.11, CALLA) in human and mice is similar in non-lymphoid organs but differs within the hematopoietic system: absence on murine T and B lymphoid progenitors. *Eur. J. Immunol.* 25: 677-687.

CHROMOSOMAL LOCATION

Genetic locus: MME (human) mapping to 3q25.2.

SOURCE

CD10 (97C5) is a mouse monoclonal antibody raised against BV173 Ph1-positive human leukemia.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD10 (97C5) is available conjugated to either phycoerythrin (sc-19993 PE) or fluorescein (sc-19993 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

CD10 (97C5) is recommended for detection of CD10 of human origin by 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 µg per 1 x 10⁶ cells).

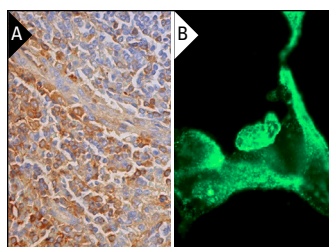
Suitable for use as control antibody for CD10 siRNA (h): sc-29959, CD10 shRNA Plasmid (h): sc-29959-SH and CD10 shRNA (h) Lentiviral Particles: sc-29959-V.

Molecular Weight of CD10: 100 kDa.

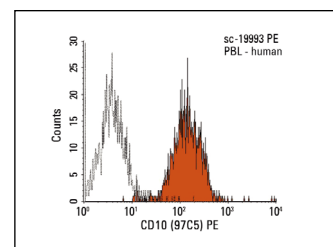
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 2) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CD10 (97C5): sc-19993. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic and membrane staining of cells in white pulp and cells in red pulp (A). Immunofluorescence staining of methanol-fixed LNCaP cells showing membrane staining (B).



CD10 (97C5) PE: sc-19993 PE. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG₁-PE: sc-2866.

SELECT PRODUCT CITATIONS

- Guimaraes-Souza, N.K., et al. 2012. *In vitro* reconstitution of human kidney structures for renal cell therapy. *Nephrol. Dial. Transplant.* 27: 3082-3090.
- Abdel-Aziz, A. and Amin, M.M. 2012. EGFR, CD10 and proliferation marker Ki67 expression in ameloblastoma: possible role in local recurrence. *Diagn. Pathol.* 7: 14.
- Andisheh-Tadmir, A., et al. 2016. Prognostic value of matrix metalloproteinase-9 expression in oral squamous cell carcinoma and its association with angiogenesis. *J. Clin. Exp. Dent.* 8: e130-e135.

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 for detailed protocols and support products.

CONJUGATES

See **CD10 (F-4): sc-46656** for CD10 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.