

CD10 (CB-Calla): sc-52455

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.
- Schlossman, S.L., et al, eds. 1995. *Leukocyte Typing V: White Cell Differentiation Antigens*. Oxford: Oxford University Press.
- 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.
- Bene, M.C. and Faure, G.C. 1997. CD10 in acute leukemias. *Haematologica* 82: 205-210.
- Barclay, A.N., et al. 1997. *The Leukocyte Antigens Facts Book*, 2nd Edition, CD10 Section, New York: Academic Press, 154.
- LocusLink Report (LocusID: 4311). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

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

SOURCE

CD10 (CB-Calla) is a mouse monoclonal antibody raised against CD10 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD10 (CB-Calla) is available conjugated to either phycoerythrin (sc-52455 PE), fluorescein (sc-52455 FITC) or Alexa Fluor[®] 488 (sc-52455 AF488) or Alexa Fluor[®] 647 (sc-52455 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

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STORAGE

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

APPLICATIONS

CD10 (CB-Calla) is recommended for detection of CD10 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

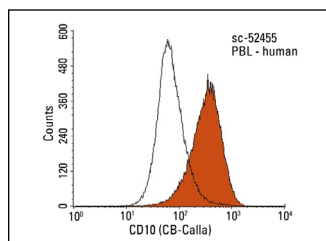
Suitable for use as control antibody for CD10 siRNA (h): sc-29959, CD10 shRNA Plasmid (h): sc-29959-SH and CD10 shRNA (h) Lentiviral Particles: sc-29959-V.

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.

DATA



CD10 (CB-Calla): sc-52455. Indirect FCM analysis of human peripheral blood leukocytes stained with CD10 (CB-Calla), followed by PE-conjugated goat anti-mouse IgG: sc-3738. Black line histogram represents the isotype control, normal mouse IgG₁: sc-3877.

SELECT PRODUCT CITATIONS

- Tsotakos, N.E., et al. 2013. Glucose-induced gradual phenotypic modulation of cultured human glomerular epithelial cells may be independent of Wilms' tumor 1 (WT1). *BMC Cell Biol.* 14: 28.

PRESEARCH USE

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

ROTOCOLS

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.