

CD10 Monoclonal Antibody (eBioCB-CALLA (CB-CALLA)), Super Bright™ 780, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG2b, kappa
Recommended Isotype Control	Mouse IgG2b kappa Isotype Control (eBMG2b), Super Bright™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioCB-CALLA (CB-CALLA)
Conjugate	Super Bright™ 780
Excitation/Emission Max	413/780 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2734856

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	3 Publications

Product Specific Information

Description: The eBioCB-CALLA monoclonal antibody recognizes human CD10 (CALLA, NEP, enkephalinase, Nephrylsin), which is a 100 kDa, type II cell surface glycoprotein originally identified for its expression on most acute lymphoblastic leukemias (ALL). Subsequently, CD10 was shown to be the same molecule as the neutral endopeptidase (NEP), or KII-NA. CD10 is a Zn²⁺-dependent metallo-peptidase with endothelin, glucagon, gastrin, neurotensin and bradykinin included among its substrates. CD10 is involved in the regulation of chemotactic and inflammatory processes involving neutrophils. In B cells, CD10 regulates stromal cell-dependent B lymphopoiesis and expression has also been reported on mature B cells in germinal centres. In addition to the hematopoietic compartment, other major sites of CD10 expression are the brush border of enterocytes and renal tubules and glomeruli. There is partial blocking of the eBioCB-CALLA and MEM-78 monoclonal antibodies indicating that they recognize similar epitopes.

Applications Reported: This eBioCB-CALLA (CB-CALLA) antibody has been reported for use in flow cytometric analysis.

Applications Tested: This eBioCB-CALLA (CB-CALLA) antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.25 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

Super Bright 780 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 780 nm. We recommend using a 780/60 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

In some experiments, we have observed that compensation values for Super Bright 780-conjugated antibodies are higher in the violet 450/50 channel when using UltraComp eBeads microspheres (Product # 01-2222-42) as compared to single-color stained cells. In such circumstances, we would recommend setting compensation with cells. We have also observed this in some experiments using AbC Total Antibody Compensation beads (Product # A10497).

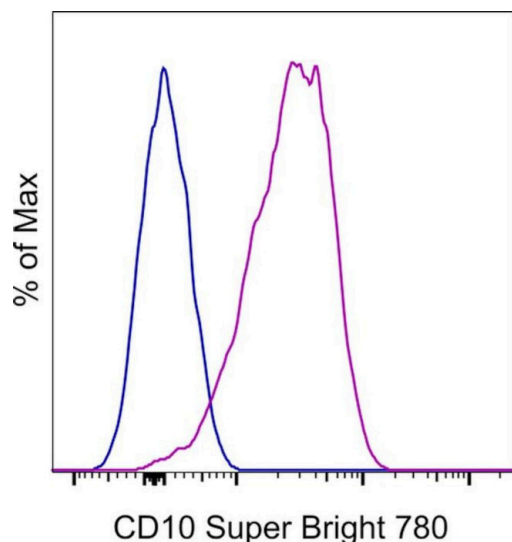
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 780 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD10 Monoclonal Antibody (eBioCB-CALLA (CB-CALLA)), Super Bright™ 780, eBioscience™



CD10 Antibody (78-0106-42) in Flow

Normal human peripheral blood cells were stained with Mouse IgG2b kappa Isotype Control, Super Bright 780 (Product # 78-4732-82) (blue histogram) or CD10 Monoclonal Antibody, Super Bright 780 (purple histogram). Cells in the granulocyte gate were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

4 References

Immunocytochemistry (1)

Advanced science (Weinheim, Baden-Wurtemberg, Germany)

A CD10-OGP Membrane Peptolytic Signaling Axis in Fibroblasts Regulates Lipid Metabolism of Cancer Stem Cells via SCD1.

"Published figure using CD10 monoclonal antibody (Product # 78-0106-42) in Immunocytochemistry"

Authors: Yu S, Lu Y, Su A, Chen J, Li J, Zhou B, Liu X, Xia Q, Li Y, Li J, Huang M, Ye Y, Zhao Q, Jiang S, Yan X, Wang X, Di C, Pan J, Su S

Year
2021

Flow Cytometry (3)

Cancer research

Endometriosis-Associated Mesenchymal Stem Cells Support Ovarian Clear Cell Carcinoma through Iron Regulation.

"Published figure using CD10 monoclonal antibody (Product # 78-0106-42) in Flow Cytometry"

Authors: Atiya HI, Frisbie L, Goldfeld E, Orellana T, Donnellan N, Modugno F, Calderon M, Watkins S, Zhang R, Elishaev E, Soong TR, Vlad A, Coffman L

Year
2022

The Journal of experimental medicine

Heterogeneous disease-propagating stem cells in juvenile myelomonocytic leukemia.

"Published figure using CD10 monoclonal antibody (Product # 78-0106-42) in Flow Cytometry"

Authors: Louka E, Povinelli B, Rodriguez-Meira A, Buck G, Wen WX, Wang G, Sousos N, Ashley N, Hamblin A, Booth CAG, Roy A, Elliott N, Iskander D, de la Fuente J, Fordham N, O'Byrne S, Inglott S, Norfo R, Salio M, Thongjuea S, Rao A, Roberts I, Mead AJ

Year
2021

[View more Flow references on thermofisher.com](#)

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