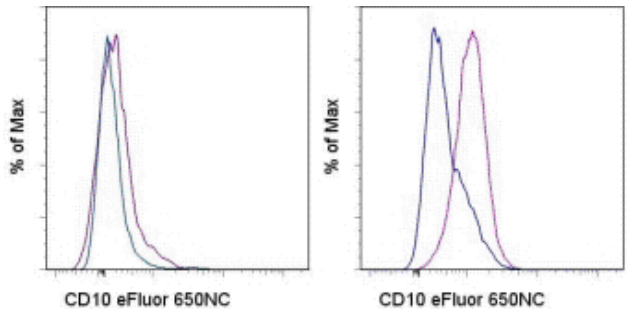
# Anti-Human CD10 eFluor® 650NC

**Catalog Number:** 95-0108
**Also Known As:**Common Acute Lymphocytic Leukemia antigen (CALLA), Neprilysin,
**RUO: For Research Use Only. Not for use in diagnostic procedures.**




Staining of normal human peripheral blood cells with Mouse IgG1 K Isotype Control eFluor® 650NC (cat. 95-4714) (blue histogram) or Anti-Human CD10 eFluor® 650NC (purple histogram). Cells in the lymphocyte (left) or monocyte (right) gate were used for analysis.

## Product Information

**Contents:** Anti-Human CD10 eFluor® 650NC
REF **Catalog Number:** 95-0108
**Clone:** SN5c
**Concentration:** 5 uL
**Host/Isotype:** Mouse IgG1

**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
**Temperature Limitation:** Store at 2-8°C. Light sensitive material. This product is guaranteed for 6 months upon receipt when stored properly.
LOT **Batch Code:** Refer to Vial
**Use By:** Refer to Vial
**Caution, contains Azide**

## Description

The eBioSN5c monoclonal antibody recognizes human CD10 (CALLA, NEP, enkephalinase, Neprilysin), which is a 100 kDa, type II cell surface glycoprotein originally identified for its expression on most acute lymphoblastic leukemias (ALLs). Subsequently, CD10 was shown to be the same molecule as neutral endopeptidase (NEP), or KII-NA. CD10 is a $Zn^{2+}$-dependent metallopeptidase acting on substrates such as endothelin, glucagon, gastrin, neurotensin and bradykinin. CD10 is involved in the regulation of chemotactic and inflammatory processes involving neutrophils. In B cells, CD10 regulates stromal cell-dependent B lymphopoiesis and its expression has been reported on mature germinal center B cells. CD10 expression is also found on normal donor granulocytes and bone marrow stromal cells. Most likely, CB-CALLA and eBioSN5c see different epitopes due to their ability to co-stain.

## Applications Reported

This SN5c antibody has been reported for use in flow cytometric analysis.

## Applications Tested

This SN5c antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL per test. A test is defined as the amount 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 $10^5$ to $10^8$ cells/test.

The Isotype Control Mouse IgG1 eFluor® 650NC (cat. 95-4714) should be used at 5 uL/test.

**Laser/Filter Recommendation**: When using eFluor 650NC, we recommend excitation with the 405nm violet laser with an appropriate filter set, such as the 630 LP dichroic mirror with the 660/40 bandpass filter. The eFluor 650NC can be minimally excited off of the 633 nm laser, and because its peak emission is 650nm, it will require some compensation out of the APC detector.

**Fixation Recommendation:** When fixing samples that have been stained with nanocrystal reagents, we recommend keeping the total volume at approximately 200 uL. (100 uL cells + 100 uL IC Fixation Buffer (cat. 00-8222)) and the exposure time at 30-60 minutes to preserve the optimal fluorescent signal from the nanocrystal reagent.

For answers about fixation and other questions, please refer to Nanocrystal Frequently Asked Questions or contact eBioscience Technical Support.

## References

Biddle WC, Haruta Y, Seon BK, Henderson ES, Sarcione EJ. In vitro and in vivo cytotoxic activity of anti-human leukemia monoclonal antibodies SN5c and SN6 daunorubicin conjugates. Leuk Res. 1989;13(8):699-707.

Matsuzaki H, Haruta Y, Fukukawa T, Barcos MP, Seon BK. Unique epitopes of common acute lymphoblastic leukemia antigen detected by new monoclonal antibodies. Cancer Res. 1987 Apr 15;47(8):2160-6. (PubMed)

**Related Products**

00-4222 Flow Cytometry Staining Buffer
95-4714 Mouse IgG1 K Isotype Control eFluor® 650NC (P3.6.2.8.1)

**Legal**

Under patent number: US 7,939,170 and additional pending patent application(s)