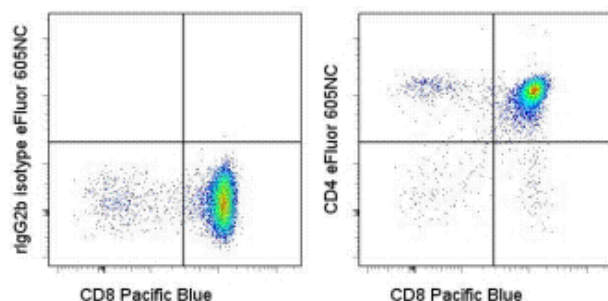


## Anti-Mouse CD4 eFluor® 605NC

**Catalog Number:** 93-0041

**Also Known As:** L3T4, Ly-4

**RUO: For Research Use Only. Not for use in diagnostic procedures.**



Staining of BALB/c thymocytes with Anti-Mouse CD8a Pacific Blue® and Rat IgG2b K Isotype Control eFluor® 605NC (cat. 93-4031) (left) or Anti-Mouse CD4 eFluor® 605NC (right). Total viable cells were used for analysis.

### Product Information

**Contents:** Anti-Mouse CD4 eFluor® 605NC

**REF** **Catalog Number:** 93-0041

**Clone:** GK1.5

**Concentration:** 5 µL

**Host/Isotype:** Rat IgG2b, kappa

**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 GK1.5 monoclonal antibody reacts with the mouse CD4 molecule, a 55 kDa cell surface receptor expressed by a majority of thymocytes, subpopulation of mature T cells and dendritic cells. CD4 binds to MHC class II on the surface of antigen presenting cells and plays an important role both in T cell development and in optimal functioning of mature T cells. In T cells, CD4 associates with protein tyrosine kinase p56lck through its cytoplasmic tail. Binding of GK1.5 is blocked by RM4-5.

### Applications Reported

This GK1.5 antibody has been reported for use in flow cytometric analysis.

### Applications Tested

This GK1.5 antibody has been pre-titrated and tested by flow cytometric analysis of mouse splenocytes. 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<sup>5</sup> to 10<sup>8</sup> cells/test.

The isotype control eFluor 605NC rat IgG2b IgG1 (cat. 93-4031) should be used at 5 µL/test.

**Laser/Filter Recommendation:** When using eFluor 605NC, we recommend excitation with the 405nm violet laser with an appropriate filter set, such as the 595LP dichroic mirror with the 605/40 bandpass filter. An acceptable alternative is the 610/20 bandpass filter. For instruments not equipped with a violet laser, the eFluor 605NC is also excited by the 488 nm blue laser and can be used as a PE-Texas Red alternative.

**Fixation Recommendation:** When fixing samples that have been stained with nanocrystal reagents, we recommend keeping the total volume at approximately 200 µL of IC Fixation Buffer (cat. 00-8222) and the exposure time 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

Mochimaru H, Usui T, Yaguchi T, Nagahama Y, Hasegawa G, Usui Y, Shimmura S, Tsubota K, Amano S, Kawakami Y, Ishida S. Suppression of alkali burn-induced corneal neovascularization by dendritic cell vaccination targeting VEGF receptor 2. Invest Ophthalmol Vis Sci. 2008 May;49(5):2172-7. (**GK1.5**, in vivo depletion, PubMed)

Yang Z, Day YJ, Toufektsian MC, Xu Y, Ramos SI, Marshall MA, French BA, Linden J. Myocardial infarct-sparing effect of adenosine A2A receptor activation is due to its action on CD4+ T lymphocytes. Circulation. 2006 Nov 7;114(19):2056-64. (**GK1.5**, in vivo depletion, PubMed)

Dialynas DP, Quan ZS, Wall KA, Pierres A, Quintáns J, Loken MR, Pierres M, Fitch FW. Characterization of the murine T cell surface molecule, designated L3T4, identified by monoclonal antibody GK1.5: similarity of L3T4 to the human Leu-3/T4 molecule. J Immunol. 1983 Nov;131(5):2445-51.

Wilde DB, Marrack P, Kappler J, Dialynas DP, Fitch FW. Evidence implicating L3T4 in class II MHC antigen reactivity; monoclonal antibody GK1.5 (anti-L3T4a) blocks class II MHC antigen- specific proliferation, release of lymphokines, and binding by cloned murine helper T lymphocyte lines. J Immunol. 1983 Nov;131(5):2178-83.

#### **Related Products**

00-4222 Flow Cytometry Staining Buffer

93-4031 Rat IgG2b K Isotype Control eFluor® 605NC

#### **Legal**

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

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