

## Anti-Mouse CD3e PE-Cyanine5

Catalogue Number : 05122-65

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

### Product Information

**Clone:** 145-2C11

**Format/Conjugate:** PE-Cyanine5

**Concentration:** 0.2 mg/mL

**Reactivity:** Mouse

**Laser:** Blue (488nm), Yellow/Green (532-561nm)

**Peak Emission:** nm

**Peak Excitation:** nm

**Filter:**

**Brightness (1=dim,5=brightest):**

**Isotype:** Armenian Hamster IgG

**Formulation:** Phosphate-buffered aqueous solution, ≤0.09% Sodium azide, may contain carrier protein/stabilizer, pH7.2.

**Storage:** Product should be kept at 2-8°C and protected from prolonged exposure to light.

**Applications:** FC

### Description

The 145-2C11 monoclonal antibody reacts with mouse CD3e, the 20 kDa  $\epsilon$  chain of the TCR complex. Together with the  $\gamma$  and  $\delta$  subunits of CD3, the  $\epsilon$  subunits are involved in the assembly, trafficking, and surface expression of T-cell receptor complex. CD3 is expressed on thymocytes, mature T cells, and natural killer T cells, and the  $\epsilon$  chain enhances the antigen recognition.

The 145-2C11 antibody binds to the TCR complex and, depending on the conditions, initiates T cells activation, proliferation, and apoptosis. The soluble antibody seems to block lysis of target cells by antigen-specific cytotoxic T lymphocytes.

The 145-2C11 antibody does not cross-react with the rat leukocytes, and it is used as a phenotypic marker for mouse T lymphocytes.

### Preparation & Storage

The product should be stored undiluted at 4°C and should be protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.

### Application Notes

The antibody has been analyzed for quality through the flow cytometric analysis of the relevant cell type. For flow cytometric staining, the suggested use of this reagent is ≤0.5 ug per million cells in 100  $\mu$ l volume. It is recommended that the reagent be titrated for optimal performance for each application.

### References

1. Leo, O., Foo, M., Sachs, D. H., Samelson, L. E., Bluestone, J. A. (1987). Identification of a monoclonal antibody specific for a murine T3 polypeptide. *Proceedings of the National Academy of Sciences*, 84(5), 1374-1378.
2. Nakano, H., Yamazaki, T., Miyatake, S., Nozaki, N., Kikuchi, A., Saito, T. (1996). Specific Interaction of Topoisomerase II and the CD3 Chain of the T Cell Receptor Complex. *Journal of Biological Chemistry*, 271(11), 6483-6489.
3. Salmund, R. J., Filby, A., Pirinen, N., Magee, A. I., Zamoyska, R. (2011). Mislocalization of Lck impairs thymocyte differentiation and can promote development of thymomas. *Blood*, 117(1), 108-117.