

## Anti-Mouse CD25 BG Violet 450

Catalog Number :07312-40

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

### Product Information

**Clone:** PC61.5

**Format/Conjugate:** BG Violet 450

**Concentration:** 0.2 mg/mL

**Reactivity:** Mouse

**Laser:** Violet (405nm)

**Peak Emission:** 450nm

**Peak Excitation:** 404nm

**Filter:** 450/50

**Brightness (1=dim,5=brightest):** 2

**Isotype:** Rat IgG1, lambda

**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 PC61.5 antibody specifically reacts with mouse CD25, the 55 kDa low-affinity Interleukin-2 Receptor  $\alpha$  chain (IL-2R  $\alpha$ ), expressed on early progenitors of T and B lineage, and on B and T cells. Together with CD122 (IL-2 Receptor  $\beta$ ) and CD 132 (IL-2 Receptor  $\gamma$ c, the common gamma chain), CD25 forms high-affinity receptor complexes for IL-2. Resting B and T cells and natural killer cells do not express IL-2R $\alpha$ . Cd25 is also expressed on the dendritic cells, and it enhances lymphocyte differentiation and activation.

The PC61.5 antibody blocks the binding of IL-2 to both high-affinity and low-affinity receptors.

BG Violet 450 conjugate is an alternative to the Pacific Blue, eFluor 450, or BD Horizon V450 dyes. It is excited by the violet (405 nm) laser, with a peak emission of 450nm.

### 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. Hayashi, T., Hasegawa, K., Adachi, C. (2005). Elimination of CD4+ CD25+ T cell accelerates the development of glomerulonephritis during the preactive phase in autoimmune-prone female NZB $\times$  NZW F1 mice. International journal of experimental pathology;86(5), 289-296.
2. Lowenthal, J. W., Tougne, C., MacDonald, H. R., Smith, K. A., Nabholz, M. (1985). Antigenic stimulation regulates the expression of IL 2 receptors in a cytolytic T lymphocyte clone.;The Journal of Immunology;134(2), 931-939.

3. Huang, B., Zhao, J., Shen, S., Li, H., He, K. L., Shen, G. X., ... Feng, Z. H. (2007). *Listeria monocytogenes* promotes tumor growth via tumor cell toll-like receptor 2 signaling.;*Cancer Research*,;67(9), 4346-4352.