

## Anti-Mouse Fc epsilon Receptor I alpha (FceR1) PE

Catalogue Number : 84112-60

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

### Product Information

**Clone:** MAR-1

**Format/Conjugate:** PE

**Concentration:** 0.2 mg/mL

**Reactivity:** Mouse

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

**Peak Emission:** 578nm

**Peak Excitation:** 496nm

**Filter:** 585/40

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

**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 Mar-1 monoclonal antibody binds to the Fc ε Receptor I α subunit (FceR1a), which is a transmembrane glycoprotein from the immunoglobulin superfamily. FceR1a lacks signal-transducing ability and is expressed by mast and basophil cells.

The Fc ε Receptor I α subunit is upregulated by IgE and forms a tetramer with a beta subunit and two gamma subunits, which have ITAM (immunoreceptor tyrosine-based activation motifs). The complex formed by the four subunits has very important roles in the IgE-facilitated allergic reactions.

### 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 ≤0.06 ug per million cells in 100 μl volume. It is recommended that the reagent be titrated for optimal performance for each application.

### References

1. Joncker, N. T., Fernandez, N. C., Treiner, E., Vivier, E., ; Raulet, D. H. (2009). NK cell responsiveness is tuned commensurate with the number of inhibitory receptors for self-MHC class I: the rheostat model.; *The Journal of Immunology*, 182(8), 4572-4580.
2. Obata, K., Mukai, K., Tsujimura, Y., Ishiwata, K., Kawano, Y., Minegishi, Y., ... ; Karasuyama, H. (2007). Basophils are essential initiators of a novel type of chronic allergic inflammation.; *Blood*, 110(3), 913-920.
3. Arinobu, Y., Iwasaki, H., Gurish, M. F., Mizuno, S. I., Shigematsu, H., Ozawa, H., ... ; Akashi, K. (2005). Developmental checkpoints of the basophil/mast cell lineages in adult murine hematopoiesis.; *Proceedings of the National Academy of Sciences of the United States of America*, 102(50), 18105-18110.