

**PE anti-mouse Fc $\epsilon$ R1 $\alpha$** 

**Catalog # / Size:** 1271540 / 200  $\mu$ g  
1271535 / 50  $\mu$ g

**Clone:** MAR-1

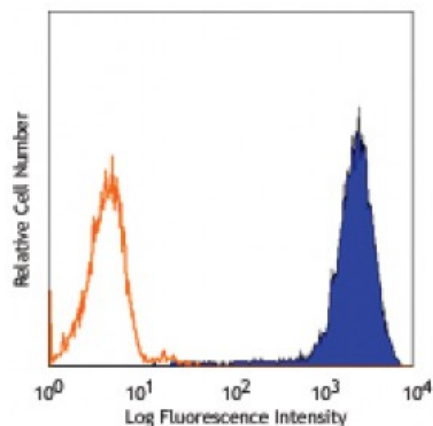
**Isotype:** Hamster IgG

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.2



Mouse mast cell line MC/9 stained with MAR-1 PE

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is  $\leq 0.25$  microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported applications (for relevant formats of this clone) include: depletion<sup>2</sup>, immunohistochemistry of frozen sections (OCT embedded<sup>2</sup>).

**Application References:**

1. Obata K, *et al.* 2007. *Blood* 110:913 (FC)
2. Sokol CL, *et al.* 2008. *Nat. Immunol.* 9:310 (FC, Deplete, IHC)
3. Chen J, *et al.* 2009. *J. Biol. Chem.* 284:5763 (FC)
4. Shade KT, *et al.* 2015. *J Exp Med.* 212:457. [PubMed](#)

**Description:** Fc $\epsilon$ R1 $\alpha$  is a transmembrane protein belonging to the Ig superfamily. Fc $\epsilon$ R1 $\alpha$  forms a tetrameric complex with one  $\beta$  and two  $\gamma$ -subunits. The Fc $\epsilon$ R1 complex plays an important role in triggering IgE-mediated allergic reactions. It is abundantly expressed on mast and basophils and up-regulated by the presence of IgE. Following stimulation via Fc $\epsilon$ R1 $\alpha$ , mast cells and basophils release bioactive chemical mediators such as histamine, resulting in the initiation of allergic reactions. Cross linking of the high-affinity receptor for IgE on tissue mast cells triggers immediate hypersensitivity with local symptoms. The MAR-1 monoclonal antibody reacts with the Fc $\epsilon$ R1 $\alpha$  subunit.

**Antigen References:**

1. Arinobu Y, *et al.* 2005. *P. Natl. Acad. Sci. USA* 102:18105.
2. Yamaguchi M, *et al.* 2001. *Int. Immunol.* 13:843.