

**APC/Fire™ 750 anti-mouse FcεRIα**

**Catalog # / Size:** 1271700 / 100 µg  
1271695 / 25 µg

**Clone:** MAR-1

**Isotype:** Hamster IgG

**Immunogen:** mTim-3 protein/Freund adjuvant

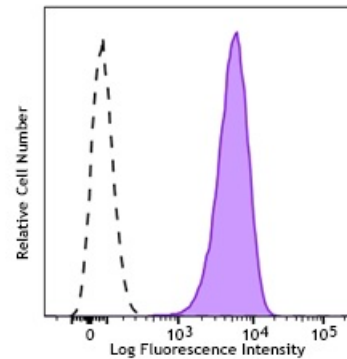
**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with APC/Fire™ 750 under optimal conditions.

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

**Workshop Number:** 750 under optimal conditions.

**Concentration:** 0.2 mg/mL



Mouse mast cell line MC/9 was stained with FcεRIα (clone MAR-1) APC/Fire™ 750 (filled histogram) or Armenian hamster IgG APC/Fire™ 750 isotype control (open histogram).

**Applications:**

**Applications:** Flow Cytometry

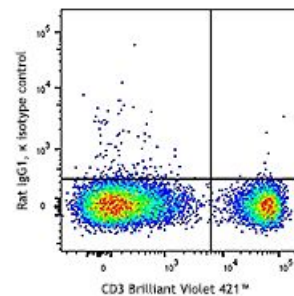
**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal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

\* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.

**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)



C57BL/6 mouse bone marrow cells were stained with CD150 (SLAM) (clone TC15-12F12.2) APC/Fire™ 750 (filled histogram) or rat IgG2a, κ APC/Fire™ 750 isotype control (open histogram).

**Description:** FcεRIα is a transmembrane protein belonging to the Ig superfamily. FcεRIα forms a tetrameric complex with one β and two γ-subunits. The FcεRI 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 FcεRIα, 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 FcεRIα 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.