SONY

Product Data Sheet

Alexa Fluor® 700 anti-mouse FcεRIα

Catalog # / Size: 1271615 / 25 µg
1271620 / 100 µg

Clone: MAR-1

Isotype: Hamster IgG

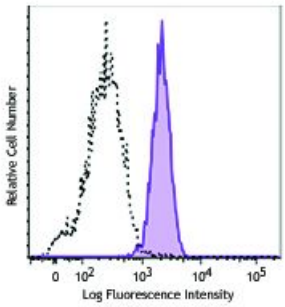
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions.

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

Workshop Number: 750 under optimal conditions.

Concentration: 0.5



Mouse mast cell line MC/9 was stained with FcεRIα (clone MAR-1) Alexa Fluor® 700 (filled histogram) or Armenian hamster IgG Alexa Fluor® 700 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 ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

Application Notes: Additional reported applications (for relevant formats of this clone) include: depletion2, immunohistochemistry of frozen sections (OCT embedded2).

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)

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.

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