

## Product Information

Contents: Affinity Purified anti-mouse FcεRIα (FcεRI-α, high affinity IgE receptor)

Catalog Number: 14-5898

Sizes: 50 ug, 100 ug, 500 ug

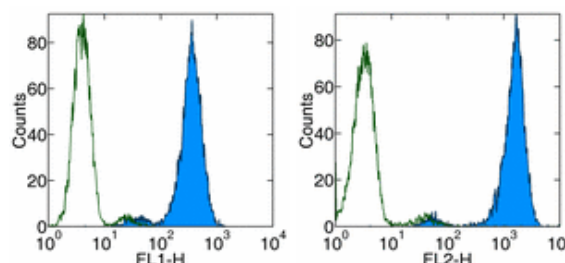
Formulation: Phosphate buffer pH 7.2,  
150 mM NaCl, 0.09% NaN<sub>3</sub>

Storage Conditions: Store at 4°C.

Avoid repeated freeze/thaw cycles.

Clone: MAR-1

Isotype: Armenian Hamster IgG



Surface staining of MC/9 cells with anti-mouse FcεRI alpha (MAR-1) FITC (left), and PE (right). Appropriate isotype controls were used (open histogram). Total viable cells were used for analysis.

## Available Formats of This Product

Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
11-5898	FITC anti-mouse FcεRI alpha (FcεRIα, FcεRI-a, FcεRI-alpha, high affinity IgE receptor)	488	518	FC
12-5898	PE anti-mouse FcεRI alpha (FcεRIα, FcεRI-a, FcεRI-alpha, high affinity IgE receptor)	488	575	FC
13-5898	Biotin anti-mouse FcεRI alpha (FcεRIα, FcεRI-a, FcεRI-alpha, high affinity IgE receptor)	N/A	N/A	FC
14-5898	Affinity Purified anti-mouse FcεRI alpha (FcεRIα, FcεRI-a, FcεRI-alpha, high affinity IgE receptor)	N/A	N/A	FA FC IH/F IHC/P IP WB
16-5898	Functional Grade* Purified anti-mouse FcεRI alpha (FcεRIα, FcεRI-a, FcεRI-alpha, high affinity IgE receptor)	N/A	N/A	FA FC

\*Functional Grade™ (FG™): Azide-free, sterile-filtered, and endotoxin < 0.001 ng/μg.

Purified: Contains azide, not sterile-filtered, and not endotoxin tested.

## Description

The MAR-1 monoclonal antibody reacts with the FcεRIα subunit, an IgE-binding subunit lacking signal-transducing ability. FcεRIα is expressed on mast and basophil cells and is up-regulated by the presence of IgE. FcεRIα forms a tetrameric complex with one β and two γ subunits. The β and γ subunits possess immunoreceptor tyrosine-based activation motifs (ITAM). The FcεRI complex plays an important role in triggering IgE-mediated allergic reactions.

## Usage

For research use only, not for diagnostic or therapeutic use. The MAR-1 antibody has been reported for use in flow cytometric analysis, immunoprecipitation, immunoblotting (WB), immunohistochemical staining of frozen tissue sections, and immunohistochemical staining of paraffin embedded tissue sections. It has also been reported in degranulation of mast cells. (Please use Functional Grade purified MAR-1, cat. 16-5898, in functional assays.)

## Applications Tested

The MAR-1 antibody has been tested by flow cytometric analysis of the MC/9 cell line (a mouse mast cell line). This can be used at less than or equal to 0.25 μg per million cells in a 100 μl total staining volume. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

## Related Products

Cat. 11-4111 FITC Anti-Armenian Hamster IgG

Cat. 13-4113 Biotin Anti-Armenian Hamster IgG (clone Polyclonal)  
Cat. 11-4317 Streptavidin-FITC (Fluorescein isothiocyanate)  
Cat. 12-4317 Streptavidin-PE (Phycoerythrin)  
Cat. 17-4317 Streptavidin Allophycocyanin (SA-APC)  
Cat. 16-4444 Functional Grade Purified Armenian Hamster IgG Isotype Control (clone n/a)  
Cat. 11-5898 FITC anti-mouse FcεRI alpha (FcεRIa, FcεRI-a, FcεRI-alpha, high affinity IgE receptor) (clone MAR-1)  
Cat. 12-5898 PE anti-mouse FcεRI alpha (FcεRIa, FcεRI-a, FcεRI-alpha, high affinity IgE receptor) (clone MAR-1)  
Cat. 13-5898 Biotin anti-mouse FcεRI alpha (FcεRIa, FcεRI-a, FcεRI-alpha, high affinity IgE receptor) (clone MAR-1)  
Cat. 16-5898 Functional Grade Purified anti-mouse FcεRI alpha (FcεRIa, FcεRI-a, FcεRI-alpha, high affinity IgE receptor) (clone MAR-1)

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## References

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### Personal Correspondence

Yamaguchi M., K. Hirai, A. Komiya, M. Miyamasu, Y. Furumoto, R. Teshima, K. Ohta, Y. Morita, S. J. Galli, C. Ra, K. Yamamoto. (2001) Regulation of Mouse Mast Cell Surface Fc epsilon RI expression by dexamethasone. *Int Immunol* 13(7):843-51.