

# Product Data Sheet

## LEAF™ Purified anti-mouse FcεR1α

**Catalog # / Size:** 134312 / 500 µg

**Clone:** MAR-1

**Isotype:** Armenian Hamster IgG

**Reactivity:** Mouse

**Preparation:** The LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.

**Formulation:** 0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.1 EU/µg of the protein (<0.01 ng/µg of the protein) as determined by the LAL test.

**Concentration:** 1.0 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C. This LEAF™ solution contains no preservative; handle under aseptic conditions.

## Applications:

**Applications:** FC - *Quality tested*  
Depletion, IHC - *Reported in the literature*

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume or 100 µl of whole blood. 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)

**Description:** FcεR1α is a transmembrane protein of Ig super family member. FcεR1α forms a tetrameric complex with one β and two γ-subunits. The FcεR1 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 FcεR1α, 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 FcεR1α subunit.

**Antigen References:** 1. Arinobu Y, *et al.* 2005. *Proc Natl Acad Sci USA.* 102(50):18105  
2. Yamaguchi M, *et al.* 2001. *Int Immunol.* 13(7):843

### Related Products:

**Product**  
LEAF™ Purified Armenian Hamster IgG Isotype Ctrl  
Cell Staining Buffer  
RBC Lysis Buffer (10X)

**Clone**  
HTK888

### Application

FC, ICFC, WB, IP, ICC, IF, FA  
FC, ICC, ICFC  
FC, ICFC



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