

Product Information

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

Catalog Number: 14-5899

Sizes: 25 ug, 100 ug

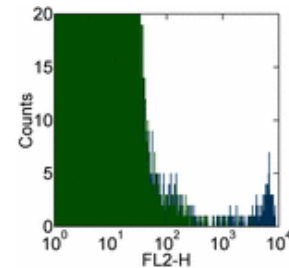
Formulation: Phosphate buffer pH 7.2, 150 mM NaCl, 0.09% NaN₃

Storage Conditions: Store at 4°C.

Avoid repeated freeze/thaw cycles.

Clone: AER-37 (CRA1)

Isotype: Mouse IgG2b, κ



Staining of human lysed whole blood with Purified Mouse IgG2b Iso Cntrl (cat. 14-4732) (green histogram) or Purified AER-37 (CRA1) (blue histogram) followed by Biotin Anti-Mouse IgG (cat. 13-4013) and Streptavidin-PE (cat. 12-4317). Cells in the lymphocyte gate were used for analysis.

Available Formats of This Product

Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
12-5899	PE anti-human FcεRI alpha (FcεRIα, FcεRI-a, FcεRI-alpha, high affinity IgE receptor)	488	575	FC
13-5899	Biotin anti-human FcεRI alpha (FcεRIα, FcεRI-a, FcεRI-alpha, high affinity IgE receptor)	N/A	N/A	FC
14-5899	Affinity Purified anti-human FcεRI alpha (FcεRIα, FcεRI-a, FcεRI-alpha, high affinity IgE receptor)	N/A	N/A	FC
17-5899	Allophycocyanin (APC) anti-human FcεRI alpha (FcεRIα, FcεRI-a, FcεRI-alpha, high affinity IgE receptor)	633	660	FC

Description

The AER-37 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 upregulated 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 (ITIM). 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 AER-37 (CRA1) antibody has been reported for use in flow cytometric analysis. It has been reported to not block IgE binding.

Applications Tested

The AER-37 (CRA1) antibody has been tested by flow cytometric analysis of peripheral blood leukocytes. This can be used at less than or equal to 1 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. 11-4011 FITC Anti-Mouse IgG
- Cat. 13-4013 Biotin Anti-Mouse IgG (clone Polyclonal)
- Cat. 11-4317 Streptavidin-FITC (Fluorescein isothiocyanate)
- Cat. 12-4317 Streptavidin-PE (Phycoerythrin)
- Cat. 17-4317 Streptavidin Allophycocyanin (SA-APC)
- Cat. 14-4732 Affinity Purified Mouse IgG2b Isotype Control

- Cat. 12-5899 PE anti-human FcεRI alpha (FcεRIa, FcεRI-a, FcεRI-alpha, high affinity IgE receptor) (clone AER-37 (CRA1))
Cat. 13-5899 Biotin anti-human FcεRI alpha (FcεRIa, FcεRI-a, FcεRI-alpha, high affinity IgE receptor) (clone AER-37 (CRA1))
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References

- Hakimi J., C. Seals, J. A. Kondas, L. Pettine, W. Danho, J. Kochan. (1990) The Alpha Subunit of the Human IgG Receptor (FcεRI) is Sufficient for High-Affinity IgE Binding. *J Biol Chem* 265(36):22079-81
- Hasegawa S, Pawankar R, Suzuki K, Nakahata T, Furukawa S, Okumura K, Ra C. (1999) Functional expression of the high affinity receptor for IgE (FcεRI) in human platelets and its intracellular expression in human megakaryocytes. *Blood* 93(8):2543-51.
- Hasegawa M, Nishiyama C, Nishiyama M, Akizawa Y, Takahashi K, Ito T, Furukawa S, Ra C, Okumura K, Ogawa H. (2003) Regulation of the human Fc(ε)RI alpha-chain distal promoter. *J Immunol* 170(7):3732-8.

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