Anti-FcεR1α（human IgE receptor）antibody, mouse monoclonal (CRA2) (FITC)

Product code	72-008
Size	50 μg
Storage	-20℃
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium
Immunogen	Recombinant extracellular portion of human FcεR1α (corresponding to amino acids Met-26-197, where signal peptide is 1-25)
Isotype	Mouse IgG1κ
Reactivity	Human
Special notes	Epitope: Amino acids 110-197 of FcεR1α (Ref 3) Conjugation: FITC
Application	1. Western blotting (～1 μg/ml) 2. Flow-Cytometry 3. Immunohistochemistry (Paraffin and Frozen) and immunocytochemistry
Background	FcεR1α is subunit of the high affinity receptor for IgE to which IgE directly binds. FcεR1 is a tetrameric complex consisting of one α, one β and two γ subunits. The latter two subunits are required for signal transduction activity. The FcεR1αcomplex plays an important role in triggering allergic responses. The CRA2 (AER24) monoclonal antibody reacts with the FcεR1αsubunit on a region that overlaps the region of the IgE binding site, thus it competes with IgE for the receptor binding. Since the CRA1 (AER37) monoclonal antibody reacts with the site different from the IgE binding site on FcεR1α, it does not compete with IgE for the receptor binding. Combining the two antibodies, one can quantitatively measure the amounts of the IgE-bound FcεR1α.
Data Link	UniProtKB P12319 (FCERA_HUMAN)

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

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Data Images: 72-008 Anti-FcεR1α（human IgE receptor）antibody, mouse monoclonal (CRA2) FITC-labeled

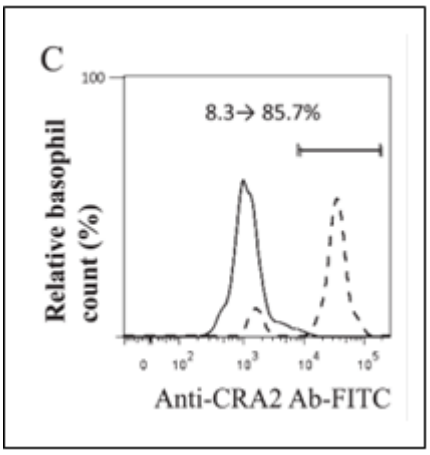

Figure. Levels of binding of CRA2 antibody measured via basophil staining with or without lactic acid treatment by flow cytometric analysis.

Dashed and solid lines mean with and without lactic acid treatment, respectively. The levels of CRA2 on basophils in the patient 1 (grade 3 allergy) are in A.

(Images and data are from Iwamoto T et al Cancer Med. 2016 Jun;5(6):1004-12.)

Related product:

72-001 Anti- FcεR1α（human IgE receptor）monoclonal antibody (CRA1)
72-003 Anti- FcεR1α（human IgE receptor）monoclonal antibody (CRA1), biotinylated
72-004 Anti- FcεR1α（human IgE receptor）monoclonal (CRA1), FITC conjugated
72-005 Anti- FcεR1α（human IgE receptor）monoclonal (CRA2)
72-007 Anti- FcεR1α（human IgE receptor）monoclonal (CRA2), biotinylated

References: This product has been used in the following publications.

1. Suzuki K. et al. The Fc receptor (FcR) γ subunit is essential for IgE-binding activity of cell-surface expressed chimeric receptor molecules constructed from human high-affinity IgE receptor (FcεRI) αand FcRγ subunits. Mol Immunol. 1998 Apr;35(5):259-70. **FC (human)**
2. Iwamoto T et al. A novel approach to predict cetuximab-induced hypersensitivity reaction: detection of drug-specific IgE on basophils. Cancer Med. 2016 Jun;5(6):1004-12. PMID: 26880699 **FC (human)**
3. Perez - Witzke D. et al. CTLA4Fcε, a novel soluble fusion protein that binds B7 molecules and the IgE receptors, and reduces human in vitro soluble CD23 production and lymphocyte proliferation Immunology 2016, 148 (1), 40-55. PMID: 26801967 **FC (human)**

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