

Anti-FcεR1α (human IgE receptor) antibody, mouse monoclonal (CRA1) (biotin)

Product code	72-003
Size	50 μg
Storage	-20°C
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium.
Immunogen	Purified recombinant extracellular portion of human FcεR1α (corresponding to amino acids Met-26-197, where signal peptide is 1-25)
Isotype	Mouse IgG 2b
Reactivity	Human, house musk shrew
Special notes	Epitope: 26-110 amino acids Conjugation: biotin ([biotin]/[IgG] = 8.9; Lot dependent)
Application	<ol style="list-style-type: none"> 1. Western blotting (~1 μg/ml) 2. Flow Cytometry (FC) (1~5 μg/ml) 3. IHC-P, IHC-F (~1 μg/ml) 4. Titration of IgE-bound receptor in combination with CRA2 antibody (Ref.3) 5. ELISA
Background	<p>FcεR1α is subunit of the high affinity receptor for IgE to which IgE directly binds. FcεR1α is a tetrameric complex consisting of one α, one β and two γ subunits. The latter two are required for signal transduction activity. The FcεR1α complex plays an important role in triggering allergic responses.</p> <p>The CRA1 (AER37) monoclonal antibody reacts with the FcεR1α subunit on a region that does not overlap the region of the IgE binding site, thus it does not compete with IgE for the receptor binding. Since the CRA2 (AER24) monoclonal antibody reacts with the IgE binding site on FcεR1α, it competes with IgE for the receptor binding. Combining the two antibodies, one can quantitatively measure the amounts of the IgE-bound FcεR1α.</p>
Data Link	UniProtKB/Swiss-Prot P12319 (FCERA_HUMAN)
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

Data Images: 72-003 Anti-FcεR1α (human IgE receptor) antibody, mouse monoclonal (CRA1) (biotin)

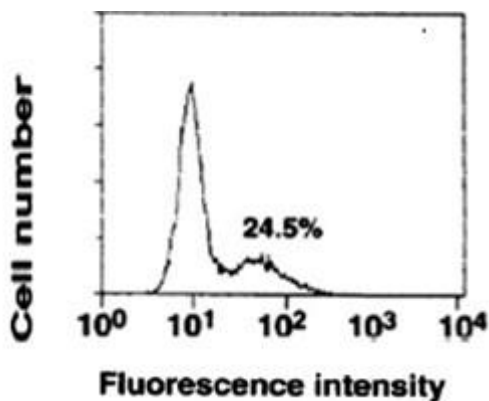


Fig.1 Flow-cytometry analysis with anti-FcεR1α antibody (CRA1), biotin-conjugated.

U266 cells were incubated with recombinant soluble FcεR1α and further reacted with biotin-conjugated anti-FcεR1α antibody (CRA1), followed by PE-conjugated streptavidin. The stained cells were analyzed by flow cytometry.

References: This antibody 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) α and FcR γ subunits. [Mol Immunol](#). 1998 Apr;35(5):259-70. PMID: [9747886](#). **WB (human)**
2. Yanagihara Y. et al. [Recombinant soluble form of the human high-affinity immunoglobulin E \(IgE\) receptor inhibits IgE production through its specific binding to IgE-bearing B cells](#). J Clin Invest. 1994 Nov; 94(5): 2162–2165. doi: [10.1172/JCI117574](#) PMID: [PMC294671](#). **FC (human)**
3. Hayashi S et al. [Detection of anti-IgE and anti-FcεRI \$\alpha\$ chain auto-antibodies in patients with atopic dermatitis](#). [Allergology International Volume 49, Issue 1](#), 2000, Pages 47-54. **ELISA (human)**
4. Yoshimura-Uchiyama C. et al. Comparative effects of basophil-directed growth factors [Biochem Biophys Res Commun](#). 2003 Mar 7;302(2):201-6. PMID:[12604332](#) **FC (human)**

Related product

- 72-001 Anti-FcεR1α (human IgE receptor) antibody, mouse monoclonal (CRA1)
- 72-004 Anti-FcεR1α (human IgE receptor) antibody, mouse monoclonal (CRA1) (FITC)
- 72-005 Anti-FcεR1α (human IgE receptor) antibody, mouse monoclonal (CRA2)
- 72-007 Anti-FcεR1α (human IgE receptor) antibody, mouse monoclonal (CRA2) (biotin)
- 72-008 Anti-FcεR1α (human IgE receptor) antibody, mouse monoclonal (CRA2) (FITC)