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

Product code	72-007
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	Purified 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: Biotin
Application	1. Western blotting (～1 µg/ml) (Ref 2, 3) 2. Flow-Cytometry (Ref 1,2) 3. Immunohistochemistry (Paraffin and Frozen) and immunocytochemistry (Ref 4) 4. Titration of IgE-bound fraction of the FcεR1α using CRA1 and CRA2 antibodies (Ref 2)
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 ß 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/Swiss-Prot 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: 72-007 Anti-FcεR1α (human IgE receptor) antibody, mouse monoclonal (CRA2) (biotin)

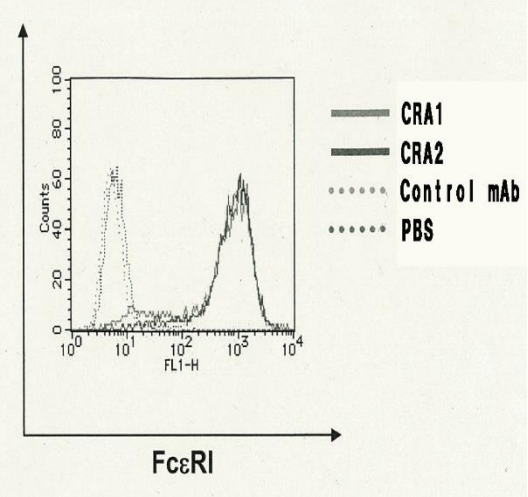

Fig.1 FACS analysis of CHO/α β γ cells (1x10^5) with CRA1 and CRA2 antibodies

References: Anti-FcεR1α monoclonal antibody (CRA2) has been used in the following publications

1. Takai T *et al* "Epitope analysis and primary structures of variable regions of anti-human FcepsilonRI monoclonal antibodies, and expression of the chimeric antibodies fused with human constant regions" *Biosci Biotechnol Biochem* 64:1856-1867(2000) PMID: 11055388
2. Takai T *et al* "Direct expression of the extracellular portion of human FcepsilonRIalpha chain as inclusion bodies in Escherichia coli "*Biosci Biotechnol Biochem* 65:79-85 (2001) PMID: 11272849
3. Hasegawa S *et al*. "Functional Expression of the High Affinity Receptor for IgE (FceRI) in Human Platelets and Its' Intracellular Expression in Human Megakaryocytes" Blood 93: 2543-2551 (1999) PMID: 10194433
4. Goto T *et al*. " Enhanced expression of the high-affinity receptor for IgE (Fc(epsilon)RI) associated with decreased numbers of Langerhans cells in the lesional epidermis of atopic dermatitis" J Dermatol Sci. 27:156-61 (2001) PMID: 11641054

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