

Anti-FcεR1α (human IgE receptor) monoclonal antibody (CRA2) Biotinylated IgG

72-007 50 ug

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 FcεR1 complex plays an important role in triggering allergic responses.

The CRA2 (AER24) monoclonal antibody reacts with the FcεR1α subunit 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.

The IgG fraction was purified from serum free culture medium of mouse hybridoma (CRA2) by propriety chromatography under mild conditions. This product is a biotinylated IgG ([biotin]/[IgG] = 6.9) produced from the IgG fraction.

Applications:

- 1) Western blotting (~1 ug/ml)
- 2) FACS
- 3) Immunohistochemistry
- 4) Titration of IgE-bound fraction of the FcεR1α using CRA1 and CRA2 antibodies

Isotype: IgG1 (κ)

Form: Purified monoclonal antibody (IgG) 0.9 mg/ml in PBS (pH 7.4), 50% glycerol, filter-sterilized, azide-free

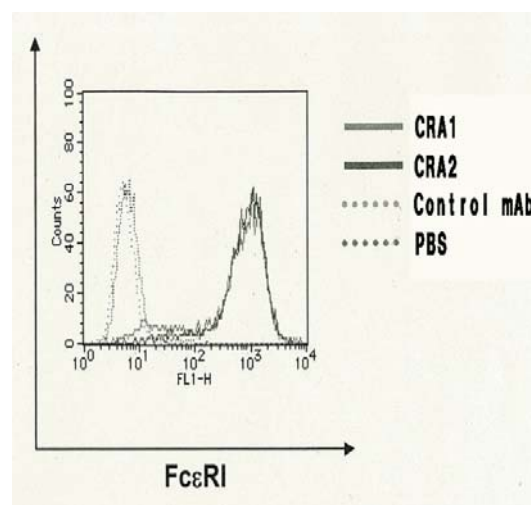
Storage: -20°C (long period, -70°C)

Data Link: UniProtKB/Swiss-Prot [P12319](#) (FCERA_HUMAN)

References: This product was described and used in reference 3.

1. Ra C *et al* "A macrophage Fc gamma receptor and the mast cell receptor for IgE share an identical subunit" *Nature* **341**:752-754 (1989) PMID: [2529442](#)
2. Hakimi J *et al* "The alpha subunit of the human IgE receptor (FcεRI) is sufficient for high affinity IgE binding" *J Biol Chem* **265**:22079-22089 (1990) PMID: [2148316](#)
3. Takai T *et al* "Epitope analysis and primary structures of variable regions of anti-human FcεRI monoclonal antibodies, and expression of the chimeric antibodies fused with human constant regions" *Biosci Biotechnol Biochem* **64**:1856-1867(2000) PMID: [11055388](#)

Figure: FACS analysis of CHO/αβγ cells (1x10⁵) with CRA1 and CRA2 antibodies by indirect-immunostaining using FITC-labeled secondary antibody.



Related product: [#72-001](#) Anti-FcεR1α (human) monoclonal antibody (CRA1)