

## Anti-Fc $\epsilon$ R1 $\alpha$ (human IgE receptor) monoclonal antibody (CRA1)

### FITC-labeled IgG

72-004      50 ug

Fc  $\epsilon$  R1  $\alpha$  is subunit of the high affinity receptor of IgE to which it directly binds. Fc  $\epsilon$  R1 is a tetrameric complex consisting of one  $\alpha$ , one  $\beta$  and two  $\gamma$  subunits. The latter two are required for signal transduction activity. The Fc  $\epsilon$  R1 complex plays an important role in triggering allergic responses.

The CRA1 (AER37) monoclonal antibody reacts with the Fc  $\epsilon$  R1  $\alpha$  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 Fc  $\epsilon$  R1  $\alpha$ , it competes with IgE for the receptor binding. Combining the two antibodies, one can quantitatively measure the amounts of the IgE-bound Fc  $\epsilon$  R1  $\alpha$ .

The IgG fraction is purified from serum free culture medium of mouse hybridoma (CRA1) by propriety chromatography under mild conditions. This product is an FITC-labeled IgG ([FITC]/[IgG] = 5.0) produced from the IgG fraction.

### Applications

- 1) Western blotting ( $\sim 1$  ug/ml)      2) FACS      3) Immunohistochemistry
- 4) Titration of IgE-bound in combination with CRA2 antibody

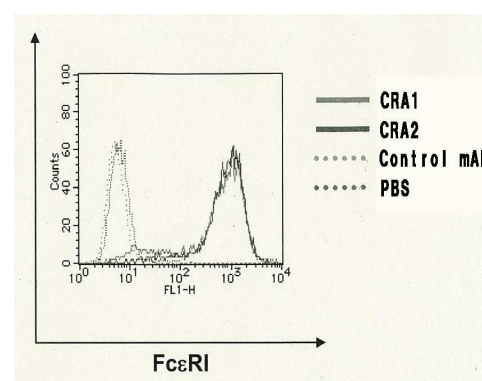
**Form:** Purified monoclonal antibody (IgG) 1.0 mg/ml in PBS (pH 7.4)

50% glycerol, sterile-filtered, azide free

**Storage:**  $-20^{\circ}\text{C}$  (long period,  $-70^{\circ}\text{C}$ )

**References:** This product was used in references 3 and 4.

1. Ra C et al. Nature 341:752 (1989)
2. Hakimi J et al. J. Biol. Chem 265:22079 (1990)
3. Yamaguchi M J. Immunol. 162:5545 (1999)
4. Suzukawa M et al. Int. Immunol. : 1249 (2005)



**Figure:** FACS analysis of CHO/ $\alpha$   $\beta$   $\gamma$  cells ( $1 \times 10^5$ ) with CRA1 and CRA2 antibodies by Indirect-immunostaining, using FITC-labeled secondary antibody.

**Related product:** 72-005 Anti-Fc  $\epsilon$  R1  $\alpha$  (human IgE receptor) monoclonal (CRA2)

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