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Inspiration for Life Science

MONOCLONAL ANTIBODY

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Catalog No. BAM-72-005-EX

Anti-FcεR1α (human IgE receptor) (Clone No. CRA2)

BACKGROUND

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.

This product is the IgG fraction purified from serum free culture medium of mouse hybridoma (CRA2) by propriety chromatography under mild conditions.

Product type	Primary antibodies
Host	Mouse
Source	Culture supernatant
Form	Liquid Purified monoclonal antibody (IgG) 1mg/ml in PBS (pH 7.4), 50% glycerol, filter-sterilized, azide-free
Volume	100 μg
Concentration	
Specificity	
Antigen	Fc epcilon R1alpha
Clone	CRA2
Isotype	IgG1 (κ)

Application notes	WB, FACS, IHC **Recommended use** **Recommended dilutions** Western blotting: - 1 ug/ml Titration of IgE-bound fraction of the FcεR1α using CRA1 and CRA2 antibodies Optimal dilutions/concentrations should be determined by the end user. Data Link: UniProtKB/Swiss-Prot P12319 (FCERA_HUMAN) **Staining Pattern**
Cross reactivity	
Storage	-20°C (for long period; -70°C)

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 (FcERI) 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 FcepsilonRI monoclonal antibodies, and expression of the chimeric antibodies fused with human constant regions" *Biosci Biotechnol Biochem* **64**:1856-1867(2000) PMID: 11055388

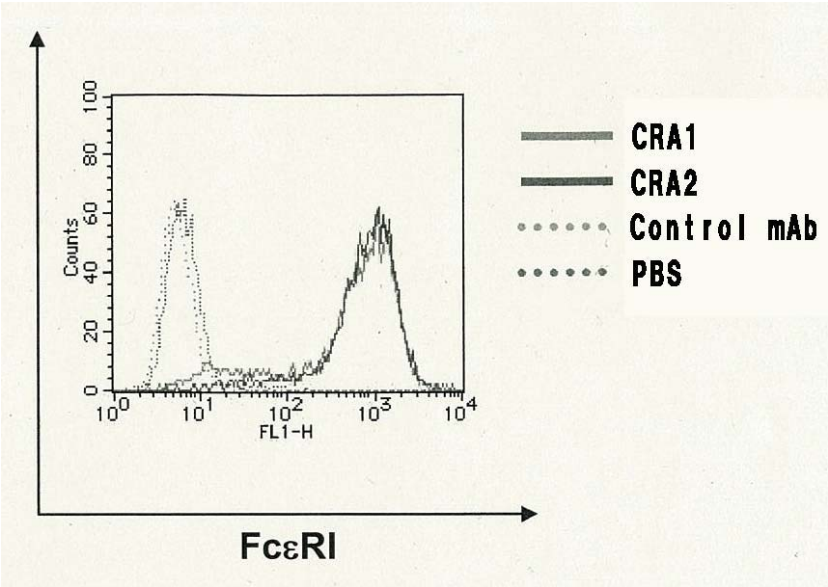

Figure: FACS analysis of CHO/αβγ cells ($1x10^5$) with CRA1 and CRA2 antibodies by indirect-immunostaining using FITC-labeled secondary antibody.

Related Products

BAM-72-001-EX	Anti-FcεR1α (human) monoclonal antibody (CRA1)

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Manufactured by BioAcademia,Inc.

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