

Anti-IgE [R1E4] Standard Size, 100 μg, Ab01115-1.32 View online

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This antibody has a D265A mutation affecting Fc receptor engagement.

This chimeric mouse antibody was made using the variable domain sequences of the original Rat IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Mouse IgG1-D265A, Fc Silenced, Kappa

Clone Number: R1E4

Alternative Name(s) of Target: Immunoglobulin E

UniProt Accession Number of Target Protein: P06336

Published Application(s): ELISA, FC

Published Species Reactivity: Mouse

Immunogen: This antibody was generated in rat against murine IgE in adjuvant.

Specificity: This antibody is specific for murine IgE. It does not react with other classes of mouse immunoglobulin including IgD, IgG, IgA, or IgM. IgE plays an essential role in type I hypersensitivity (allergic responses such as hay fever, asthma, hives, anaphylatic shock) by binding to Fc receptors on basophils and mast cells. Crosslinking of IgE bound to Fc receptors induces degranulation of mast cells and basophils that promote allergic manifestations. IgE is also functionally important for immunity against parasites.

Application Notes: In the original study, this antibody and other clones (C12B9, 23G3, and B1E3) of the monoclonal anti-mIgE antibodies were used in conjunction with the recombinant chimeric mIgE-human IgG1 molecules (Keegan et al., 1991). It has been demonstrated that the Cc3 domain is important in the binding of mIgE to the murine B cell FccRII as well as to the murine mast cell FccRI (Keegan et al., 1991). Also, while the Cc4 domain had no effect on binding to the FccRI, the presence of the Cc4 domain influenced the binding of the recombinant IgE to the FccRII (Keegan et al., 1991). This antibody blocks IgE binding to mouse or rat FccRI and can be used in mouse IgE ELISA. In addition, this antibody could be used, for instance, to develop a flow cytometry assay for the identification and differentiation of chemicals with the potential to elicit irritation, IgE-mediated, or T cell-mediated hypersensitivity responses (Manetz et al, 1999), or to study the kinetics of the Iigand-IgE interaction (Posner et al., 1992).

Antibody First Published in: Keegan et al. Characterization of new rat anti-mouse IgE monoclonals and their use along with chimeric IgE to further define the site that interacts with Fc epsilon RII and Fc epsilon RI. Mol Immunol. 1991 Oct;28(10):1149-54. PMID:1717839

Note on publication: Describes the original generation of this antibody and its subsequent characterisation to further define the site that interacts with Fc epsilon RI and Fc epsilon RI.

Product Form

Size: 100 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at - 20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic

procedures for humans or animals.