

Anti-IgE [R1E4] Bulk Size Ab01115-6.1-BT

Isotype and Format: Rat IgG1, 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 Cε3 domain is important in the binding of mIgE to the murine B cell FcεRII as well as to the murine mast cell FcεRI (Keegan et al., 1991). Also, while the Cε4 domain had no effect on binding to the FcεRI, the presence of the Cε4 domain influenced the binding of the recombinant IgE to the FcεRII (Keegan et al., 1991). This antibody blocks IgE binding to mouse or rat FcεRI 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 ligand-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 RII and Fc epsilon RI.

Product Form

Size: 1 mg Purified antibody in bulk size.

Purification:

Protein A affinity purified

Supplied In: PBS only.

Storage Recommendation: Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. 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.