

SM3061F**Monoclonal Antibody to Human IgE - FITC**

Alternate names:	Immunoglobulin E human
Quantity:	0.1 mg
Concentration:	0.1 mg/ml
Background:	Immunoglobulin E (IgE) is a 180 kDa soluble protein serving as an antigen-specific unit of mast cell effector mechanisms. IgE has the lowest serum concentration of all immunoglobulins (approximately 0.5 mg/l) in healthy individuals, but upon allergen challenge its concentration in blood increases dramatically. Although biological survival of free IgE is very short ($T_{1/2} = 2$ days), it is stabilized after binding to its high affinity receptor. Unlike IgM- IgG- and IgA-committed B cells, IgE-switched B cells do not undergo clonal expansion.
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10F (for use in human samples)
Clone:	BE5
Immunogen:	Purified human IgE
Format:	State: Liquid purified Ig fraction Buffer System: Phosphate buffered saline (PBS) containing 15 mM sodium azide Label: FITC – Conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC.
Applications:	Flow cytometry: 5 µg/ml. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody reacts with human IgE; it recognizes an epitope different from the ones recognized by 4G7 and 4H10 antibodies to IgE.
Species Reactivity:	Tested: Human
Storage:	Store the antibody at 2 - 8 °C. DO NOT FREEZE! This product is photosensitive and should be protected from light. Shelf life: one year from despatch.
Product Citations:	Originator or purchased from resellers: 1. Kaulfürst-Soboll H, Mertens M, Brehler R, von Schaewen A. Reduction of cross-reactive carbohydrate determinants in plant foodstuff: elucidation of clinical relevance and implications for allergy diagnosis. PLoS One. 2011 Mar 14;6(3):e17800. doi: 10.1371/journal.pone.0017800. PubMed PMID: 21423762.
General Readings:	1. Franklin EC. Structure and function of immunoglobulins. Acta Endocrinol Suppl (Copenh). 1975;194:77-95. PubMed PMID: 47690. 2. Fuller JM, Keyser JW. Serum immunoglobulins after surgical operation. Clin Chem. 1975 May;21(6):667-71. PubMed PMID: 1122610. 3. Balogh Z, Merétey K, Falus A, Bozsóky S. Serological abnormalities in juvenile chronic arthritis: a review of 46 cases. Ann Rheum Dis. 1980 Apr;39(2):129-34.

PubMed PMID: 6966908.

4. Brinkmann V, Heusser CH. T cell-dependent differentiation of human B cells into IgM, IgG, IgA, or IgE plasma cells: high rate of antibody production by IgE plasma cells, but limited clonal expansion of IgE precursors. *Cell Immunol.* 1993 Dec;152(2):323-32. PubMed PMID: 8258141.

5. Gould HJ, Bevil RL, Vercelli D. IgE isotype determination: epsilon-germline gene transcription, DNA recombination and B-cell differentiation. *Br Med Bull.* 2000;56(4):908-24. PubMed PMID: 11359628.

6. Kaulfürst-Soboll H, Mertens M, Brehler R, von Schaewen A. Reduction of cross-reactive carbohydrate determinants in plant foodstuff: elucidation of clinical relevance and implications for allergy diagnosis. *PLoS One.* 2011 Mar 14;6(3):e17800. doi: 10.1371/journal.pone.0017800. PubMed PMID: 21423762.

Pictures:

Fig. 1. Flow Cytometry analysis of basophil activation upon stimulation of normal (heparin-treated) whole blood with combination of IL-3 and Goat anti-IgE polyclonal antibody. Combination of anti-human IgE (BE5) FITC and anti-human CD63 (MEM-259) PE-Dyomics 647 was used (analysis in basophil window). Fig. 1A - staining of non-stimulated (control) sample Fig. 1B - staining of IgE stimulated sample

Surface staining of IgE in human peripheral blood lymphocytes with anti-IgE (BE5) purified, GAM-APC.

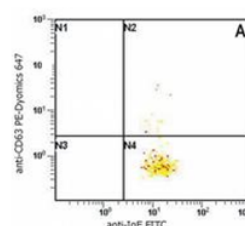


Fig. 1A Flow Cytometry analysis

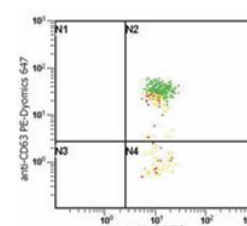


Fig. 1B Flow Cytometry analysis

