

SM3061P

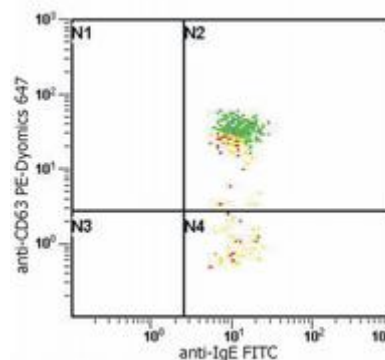
Monoclonal Antibody to Human IgE - Purified

Alternate names:	Immunoglobulin E human
Quantity:	0.1 mg
Concentration:	1.0 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:	SM10P (for use in human samples), AM03095PU-N
Clone:	BE5
Immunogen:	Purified human IgE
Format:	State: Liquid Ig fraction Purification: Precipitation methods and ion exchange chromatography; purity: > 95% (by SDS-PAGE) Buffer System: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Applications:	ELISA. Flow Cytometry: 5-10 µg/ml. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	The antibody reacts with human IgE; it recognizes an epitope different from the ones recognized by clone 4G7 and clone 4H10 antibodies to IgE.
Species Reactivity:	Tested: Human
Storage:	Store undiluted at 2-8°C. DO NOT FREEZE! 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.

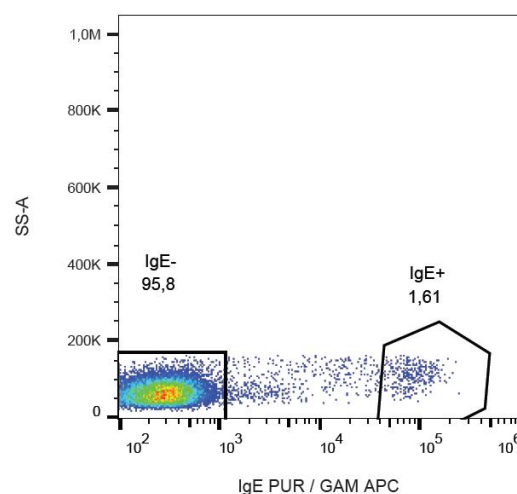
3. Balogh Z, Merétey K, Falus A, Bozsóky S. Serological abnormalities in juvenile chronic arthritis: a review of 46 cases. *Ann Rheum Dis*. 1980 Apr;39(2):129-34. PubMed PMID: 6966908.
4. Brinkmann V, Heusser CH. T cell-dependent differentiation of human B cells into IgM, IgG, IgA, or IgE plasma cells: 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, Beavil 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:

Figure 2: staining of IgE stimulated sample



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



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 (SM3035P6) was used (analysis in basophil window). **Figure 1:** staining of non-stimulated (control) sample.

