

TECHNICAL DATA SHEET

CyFlow™ IgE FITC Anti-Hu; Clone 4H10

REF BD615264

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	IgE
Alternative Names	—
Clone	4H10
Clonality	monoclonal
Format	FITC
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [0.1 mg/ml]
Immunogen	Purified human IgE

Specificity

The mouse monoclonal antibody 4H10 recognizes human immunoglobulin E (IgE); it recognizes an epitope different from the ones recognized by BE5 and 4G7 antibodies to IgE.

Contact Information:

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Application

The reagent is designed for Flow Cytometry analysis. Suggested working usage is 3.5 µg/ml. Indicated dilution is recommended starting point for use of this product, but working concentrations should be validated by the investigator.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

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.

References

- Franklin EC: Structure and function of immunoglobulins. Acta Endocrinol Suppl (Copenh). 1975; 194:77-95. < PMID: 47690 >
- Fuller JM, Keyser JW: Serum immunoglobulins after surgical operation. Clin Chem. 1975 May; 21(6):667-71. < PMID: 1122610 >
- 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. < PMID: 6966908 >
- 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. < PMID: 8258141 >

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- 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. < PMID: 11359628 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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