

TECHNICAL DATA SHEET

CyFlow™ IgE Purified Anti-Hu; Clone 4H10

REF BN409324

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

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

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Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Enzyme-linked immunosorbent assay

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH $\approx$ 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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