

TECHNICAL DATA SHEET

CyFlow™ CD21 PE Anti-Hu; Clone LT21

REF AC533349

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD21
Alternative Names	C3dR, CR2, EBV-R
Clone	LT21
Clonality	monoclonal
Format	PE
Host / Isotype	Mouse / IgG1
Species Reactivity	Human, Pig Cow Dog
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	IM9 human B-lymphoblastoid cell line

Specificity

The mouse monoclonal antibody LT21 recognizes CD21 antigen, a 145 kDa transmembrane glycoprotein (complement C3d receptor - C3dR) expressed on B lymphocytes, follicular dendritic cells, some epithelial cells and a subsets of T lymphocytes. It is not expressed on immature B cells.

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Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 20 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.

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

CD21 (CR2; complement receptor 2) binds C3 complement fragments, especially its breakdown fragments, which remain covalently attached to complement activating surfaces or antigen. CD21 has important roles in uptake and retention of immunocomplexes, survival of memory B cells and in development and maintenance of the humoral response to T-dependent antigens. CD21 also serves as a key receptor for Epstein-Barr virus binding and is involved in targeting prions to follicular dendritic cells and expediting neuroinvasion following peripheral exposure to prions. A soluble form of the CD21 (sCD21) is shed from the lymphocyte surface and retains its ability to bind respective ligands.

References

- Kishimoto T, Goyert S, Kikutani H, Mason D, Miyasaka M, Moretta L, Ohno T, Okumura K, Shaw S, Springer TA, Sugamura K, Sugawara H, von dem Borne AEGK, Zola H (Eds): Leucocyte Typing VI. Garland Publishing Inc, New York. 1997; 1-1342. < NLM ID: 9712219 >
- Kasprzak A, Spachacz R, Wachowiak J, Stefanska K, Zabel M: Epstein-Barr virus (EBV) infection in B-cell non-Hodgkin's lymphomas in children: virus latency and its correlation with CD21 and CD23 molecules. Folia Histochem Cytobiol. 2007; 45(3):169-79. < PMID: 17951165 >

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- Filatov AV, Krotov GI, Zgoda VG, Volkov Y: Fluorescent immunoprecipitation analysis of cell surface proteins: a methodology compatible with mass-spectrometry. J Immunol Methods. 2007 Jan 30; 319(1-2):21-33. < PMID: 17098248 >
- Twohig J, Kulik L, Haluszczak C, Reuter J, Rossbach A, Bull M, Holers VM, Marchbank KJ: Defective B cell ontogeny and immune response in human complement receptor 2 (CR2, CD21 transgenic mice is partially recovered in the absence of C3. Mol Immunol. 2007 Jul; 44(13):3434-44. < PMID: 17379312 >
- Faldyna M, Samankova P, Leva L, Cerny J, Oujezdská J, Rehakova Z, Sinkora J: Cross-reactive anti-human monoclonal antibodies as a tool for B-cell identification in dogs and pigs. Vet Immunol Immunopathol. 2007 Sep 15; 119(1-2):56-62. < PMID: 17673300 >
- Roozendaal R, Carroll MC: Complement receptors CD21 and CD35 in humoral immunity. Immunol Rev. 2007 Oct; 219:157-66. < PMID: 17850488 >
- Zabel MD, Heikenwalder M, Prinz M, Arrighi I, Schwarz P, Kranich J, von Teichman A, Haas KM, Zeller N, Tedder TF, Weis JH, Aguzzi A: Stromal complement receptor CD21/35 facilitates lymphoid prion colonization and pathogenesis. J Immunol. 2007 Nov 1; 179(9):6144-52. < PMID: 17947689 >
- Singh A, Blank M, Shoenfeld Y, Illges H: Antiphospholipid syndrome patients display reduced titers of soluble CD21 in their sera irrespective of circulating anti-beta2-glycoprotein-I autoantibodies. Rheumatol Int. 2008 Jan 3; < PMID: 23949624 >

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

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