

1F-160-T025

Monoclonal Antibody to CD45 Fluorescein (FITC) conjugated (25 tests)

Clone:	2D1
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody 2D1 reacts with all alternative forms of human CD45 antigen (Leukocyte Common Antigen), a 180-220 kDa single chain type I transmembrane protein expressed at high level on all cells of hematopoietic origin, except from erythrocytes and platelets.
Regulatory Status:	RUO
Immunogen:	Human peripheral blood mononuclear cells
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.1 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD45 (LCA, leukocyte common antigen) is a receptor-type protein tyrosine phosphatase ubiquitously expressed in all nucleated hematopoietic cells, comprising approximately 10% of all surface proteins in lymphocytes. CD45 glycoprotein is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases. CD45 protein exists as multiple isoforms as a result of alternative splicing; these isoforms differ in their extracellular domains, whereas they share identical transmembrane and cytoplasmic domains. These isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. Besides the role in immunoreceptor signaling, CD45 is important in promoting cell survival by modulating integrin-mediated signal transduction pathway and is also involved in DNA fragmentation during apoptosis.

For laboratory research only, not for drug, diagnostic or other use.



Antibodies

References:

- *Mariucci S, Rovati B, Bencardino K, Manzoni M, Danova M: Flow cytometric detection of circulating endothelial cells and endothelial progenitor cells in healthy subjects. *Int J Lab Hematol.* 2010 Feb;32(1 Pt 1):e40-8.
- *Vicetti Miguel RD, Harvey SA, LaFramboise WA, Reighard SD, Matthews DB, Cherpes TL: Human female genital tract infection by the obligate intracellular bacterium *Chlamydia trachomatis* elicits robust Type 2 immunity. *PLoS One.* 2013;8(3):e58565.
- *Wellhausen SR, Slone SP, Miller JJ: Clone-specific anti-CD45 blocking factor in patient plasma. *Cytometry B Clin Cytom.* 2007 Sep;72(5):423-6.
- *Janossy G, Jani IV, Bradley NJ, Bikoue A, Pitfield T, Glencross DK: Affordable CD4(+)-T-cell counting by flow cytometry: CD45 gating for volumetric analysis. *Clin Diagn Lab Immunol.* 2002 Sep;9(5):1085-94.
- *Pfau JC, Walker E, Card GL: Monoclonal antibodies to CD45 modify LPS-induced arachidonic acid metabolism in macrophages. *Biochim Biophys Acta.* 2000 Feb 28;1495(3):212-22.
- *Ito A, Ishida T, Yano H, Inagaki A, Suzuki S, Sato F, Takino H, Mori F, Ri M, Kusumoto S, Komatsu H, Iida S, Inagaki H, Ueda R: Defucosylated anti-CCR4 monoclonal antibody exercises potent ADCC-mediated antitumor effect in the novel tumor-bearing humanized NOD/Shi-scid, IL-2Rgamma(null) mouse model. *Cancer Immunol Immunother.* 2009 Aug;58(8):1195-206.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at www.exbio.cz.

For laboratory research only, not for drug, diagnostic or other use.

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz