EXBIO Antibodies

PRODUCT DATA SHEET

A7-224-T100

Monoclonal Antibody to CD45RB Alexa Fluor® 700 conjugated (100 tests)

Clone: MEM-55

Isotype: Mouse IgG1

Specificity: The antibody MEM-55 recognizes a siliadase-sensitive epitope of CD45RB, a 180-240 kDa single chain type I membrane glycoprotein, variant of CD45 (CD45RB isoform). CD45RB is expressed on a subset of T lymphocytes, B lymphocytes, monocytes, macrophages, granulocytes and dendritic cells.
HLDA III; WS Code NL 358
HLDA IV; WS Code NL 2
HLDA V; WS Code T T-151
HLDA V; WS Code T T-CD45.08

Immunogen: Human thymocytes and T lymphocytes.

Species Reactivity: Human, Non-Human Primates

Preparation: The purified antibody is conjugated with Alexa Fluor® 700 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.

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.
Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.

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 (0.4 ml) is sufficient for 100 tests.

Expiration: See vial label

Lot Number: See vial label

Background: CD45RB is an of a receptor-type protein tyrosine phosphatase, CD45 glycoprotein. CD45 is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases, promotes cell survival by modulating integrin-mediated signal transduction pathway and is also involved in DNA fragmentation during apoptosis. CD45 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. CD45RB is expressed e.g. in microglia and inflammatory cells.

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

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References:

*Townsend KP, Vendrame M, Ehrhart J, Faza B, Zeng J, Town T, Tan J: CD45 isoform RB as a molecular target to oppose lipopolysaccharide-induced microglial activation in mice. Neurosci Lett. 2004 May 13;362(1):26-30.
*Li FJ, Tsuyama N, Ishikawa H, Obata M, Abroun S, Liu S, Otsuyama K, Zheng X, Ma Z, Maki Y, Kawano MM: A rapid translocation of CD45RO but not CD45RA to lipid rafts in IL-6-induced proliferation in myeloma. Blood. 2005 Apr 15;105(8):3295-302.
*Cosenza-Nashat MA, Kim MO, Zhao ML, Suh HS, Lee SC: CD45 isoform expression in microglia and inflammatory cells in HIV-1 encephalitis. Brain Pathol. 2006 Oct;16(4):256-65.
*Dawes R, Petrova S, Liu Z, Wraith D, Beverley PC, Tchilian EZ. Combinations of CD45 isoforms are crucial for immune function and disease. J Immunol. 2006 Mar 15;176(6):3417-25.
*Bijian K, Zhang L, Shen SH: Collagen-mediated survival signaling is modulated by CD45 in Jurkat T cells. Mol Immunol. 2007 Jul;44(15):3682-90.
*Desharnais P, Dupéré-Minier G, Hamelin C, Devine P, Bernier J: Involvement of CD45 in DNA fragmentation in apoptosis induced by mitochondrial perturbing agents. Apoptosis. 2007 Dec 19
*Leukocyte Typing III., McMichael A. J. et al (Eds.), Oxford University Press (1987).
*Horejsi V, Angelisova P, Bazil V, Kristofova H, Stoyanov S, Stefanova I, Hausner P, Vosecky M, Hilgert I: Monoclonal antibodies against human leucocyte antigens. II. Antibodies against CD45 (T200), CD3 (T3), CD43, CD10 (CALLA), transferrin receptor (T9), a novel broadly expressed 18-kDa antigen (MEM-43) and a novel antigen of restricted expression (MEM-74). Folia Biol (Praha). 1988;34(1):23-34.
*Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
*Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).
*Koethe S, Zander L, Köster S, Annan A, Ebenfelt A, Spencer J, Bemark M: Pivotal advance: CD45RB glycosylation is specifically regulated during human peripheral B cell differentiation. J Leukoc Biol. 2011 Jul;90(1):5-19.

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