

1P-206-T025

Monoclonal Antibody to CD7 Phycoerythrin (PE) conjugated (25 tests)

Clone:	MEM-186
Isotype:	Mouse IgG1
Specificity:	The MEM-186 antibody reacts with CD7, a 40 kD type I transmembrane glycoprotein expressed on peripheral blood T lymphocytes, NK-cells, hematopoietic progenitors, monocytes (weakly) and also on acute lymphocytic leukemia. HLDA VI; WS Code T 6T-015
Immunogen:	Human acute myelogenous leukaemia cell line KG-1.
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) 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 20 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.5 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD7, also known as gp40, is a member of the immunoglobulin superfamily found on T cells, NK cells, thymocytes, hematopoietic progenitors, and monocytes (weakly). CD7 is also expressed on acute lymphocytic leukemia (ALL). CD7 crosslinking induces a calcium flux in T lymphocytes, presumably as a result of cytoplasmic domain association with PI3-kinase. CD7 co-stimulation can induce cytokine secretion and modulate cellular adhesion. A ligand of CD7, epithelial cell secreted protein K12, is produced in thymus to regulate thymocyte signaling and cytokine release. In lung microvascular endothelial cells CD7 serves as an IgM Fc receptor. Expression of CD7 is an important marker used in leukemia diagnostics.

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



Antibodies

References:

- *Alaibac M, Pigozzi B, Belloni-Fortina A, Michelotto A, Saponeri A, Peserico A. CD7 expression in reactive and malignant human skin T-lymphocytes. *Anticancer Res.* 2003 May-Jun;23(3B):2707-10.
- *Lam GK, Liao HX, Xue Y, Alam SM, Searce RM, Kaufman RE, Sempowski GD, Haynes BF. Expression of the CD7 ligand K-12 in human thymic epithelial cells: regulation by IFN-gamma. *J Clin Immunol.* 2005 Jan;25(1):41-9.
- *Nishimura M, Takanashi M, Okazaki H, Satake M, Nakajima K.: Role of CD7 expressed in lung microvascular endothelial cells as Fc receptor for immunoglobulin M. *Endothelium.* 2006 Jul-Aug;13(4):287-92.
- *Chang H, Yeung J, Brandwein J, Yi QL.: CD7 expression predicts poor disease free survival and post-remission survival in patients with acute myeloid leukemia and normal karyotype. *Leuk Res.* 2007 Feb;31(2):157-62. Epub 2006 Jul 11.
- *Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).

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