

## PB-205-T100

## Monoclonal Antibody to CD6 Pacific Blue™ conjugated (100 tests)

Clone: MEM-98

Isotype: Mouse IgG1

**Specificity:** The MEM-98 antibody reacts with CD6, a 100-130 kDa single chain transmembrane glycoprotein expressed on T and B lymphocytes subsets, thymocytes, and acute lymphocytic leukemia cells.

Regulatory Status: RUO

Immunogen: Human CD6 antigen purified by immunoaffinity chromatography from HBP-ALL cells followed by preparative SDS-PAGE of non-boiled non-reduced sample (excised piece of gel corresponding to the 100 kDa zone).

Species Reactivity: Human

- **Preparation:** The purified antibody is conjugated with Pacific Blue<sup>™</sup> 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 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  $\mu$ l reagent / 100  $\mu$ l of whole blood or 10<sup>6</sup> 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:** CD6, also known as T12, is a member of the scavenger receptor superfamily found on T and B cell subsets, thymocytes, and acute lymphocytic leukemia cells (ALL). CD6 interacts with its ligand CD166/ALCAM (activated leukocyte cell adhesion molecule) and serves as a coreceptor for T cell activation and stabilizer of the immunological synapse. CD6-ALCAM mediated cell adhesion is also important for T cell proliferation. CD6 may exert some its functions via association with CD5, probably by fine-tuning CD5 signaling. Ligation of CD6 has antiapoptotic role in chronic lymphocytic leukemia B cells.

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References:

\*Osorio LM, De Santiago A, Aguilar-Santelises M, Mellstedt H, Jondal M: CD6 ligation modulates the Bcl-2/Bax ratio and protects chronic lymphocytic leukemia B cells from apoptosis induced by anti-IgM. Blood. 1997 Apr 15;89(8):2833-41. \*Zimmerman AW, Joosten B, Torensma R, Parnes JR, van Leeuwen FN, Figdor CG.: Long-term engagement of CD6 and ALCAM is essential for T-cell proliferation induced by dendritic cells. Blood. 2006 Apr 15;107(8):3212-20. Epub 2005 Dec 13. \*Bazil V. et al: Monoclonal antibodies against human leucocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102. Folia Biol. (Praha) 35, 35 (1989). \*Hassan NJ, Simmonds SJ, Clarkson NG, Hanrahan S, Puklavec MJ, Bomb M, Barclay AN, Brown MH: CD6 regulates T-cell responses through activation-dependent recruitment of the positive regulator SLP-76. Mol Cell Biol. 2006 Sep;26(17):6727-38.

\*Castro MA, Oliveira MI, Nunes RJ, Fabre S, Barbosa R, Peixoto A, Brown MH, Parnes JR, Bismuth G, Moreira A, Rocha B, Carmo AM: Extracellular isoforms of CD6 generated by alternative splicing regulate targeting of CD6 to the immunological synapse. J Immunol. 2007 Apr 1;178(7):4351-61.

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