



11-201-C100

## Monoclonal Antibody to CD2 Purified Antibody (0.1 mg)

<b>Clone:</b>	MEM-65
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	The antibody MEM-65 recognizes an unique epitope of CD2, a 50 kDa glycoprotein present on the human peripheral blood T-lymphocytes and NK cells; also expressed by all thymocytes. HLDA VI; WS Code T 6T-012
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	Human peripheral T cells.
<b>Species Reactivity:</b>	Human
<b>Application:</b>	Flow Cytometry Recommended dilution: 1-5 µg/ml Immunoprecipitation
<b>Purity:</b>	> 95% (by SDS-PAGE)
<b>Purification:</b>	Purified by protein-A affinity chromatography
<b>Concentration:</b>	1 mg/ml
<b>Storage Buffer:</b>	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
<b>Storage / Stability:</b>	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	CD2 belongs to T lymphocyte glycoproteins of immunoglobulin superfamily. Its interaction with CD58 stabilizes adhesion between T cells and antigen presenting or target cells. Relatively low affinity of CD2 to CD58 (as measured in solution) is compensated within the two-dimensional cell-cell interface to provide tight adhesion. Moreover, T cell activation induces increased CD2 expression and its lateral mobility, making easier contact between CD2 and CD58. Subsequently, T cell activation causes fixation of CD58-CD2 at sites of cell-cell contact, thereby strengthening intercellular adhesion. CD2 deficiency reduces intestinal inflammation and helps to control infection.

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

**Antibodies****References:**

- \*Dustin ML: Adhesive bond dynamics in contacts between T lymphocytes and glass-supported planar bilayers reconstituted with the immunoglobulin-related adhesion molecule CD58. *J Biol Chem.* 1997 Jun 20;272(25):15782-8.
- \*Zhu DM, Dustin ML, Cairo CW, Thatte HS, Golan DE: Mechanisms of Cellular Avidity Regulation in CD2-CD58-Mediated T Cell Adhesion. *ACS Chem Biol.* 2006 Nov 21;1(10):649-58.
- \*Pawlowski NN, Struck D, Grollich K, Kuhl AA, Zeitz M, Liesenfeld O, Hoffmann JC: CD2 deficiency partially prevents small bowel inflammation and improves parasite control in murine *Toxoplasma gondii* infection. *World J Gastroenterol.* 2007 Aug 21;13(31):4207-13.
- \*Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).
- \*Drbal K, Hilgert I, Cebecauer M, Angelisova P, Horejsi V: New monoclonal antibodies to human leucocyte surface molecule CD2. *Folia Biol (Praha).* 1997;43(6):245-6.
- \*Ilangumaran S, Briol A, Hoessli DC: CD44 selectively associates with active Src family protein tyrosine kinases Lck and Fyn in glycosphingolipid-rich plasma membrane domains of human peripheral blood lymphocytes. *Blood.* 1998 May 15;91(10):3901-8.
- \*Espagnolle N, Depoil D, Zaru R, Demeur C, Champagne E, Guiraud M, Valitutti S: CD2 and TCR synergize for the activation of phospholipase Cgamma1/calcium pathway at the immunological synapse. *Int Immunol.* 2007 Mar;19(3):239-48.

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