



1B-201-C025

Monoclonal Antibody to CD2 Biotin conjugated (0.025 mg)

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| Clone: | MEM-65 |
| Isotype: | Mouse IgG1 |
| Specificity: | 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 |
| Regulatory Status: | RUO |
| Immunogen: | Human peripheral T cells. |
| Species Reactivity: | Human |
| Preparation: | The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin. |
| Concentration: | 1 mg/ml |
| Storage Buffer: | Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4 |
| Storage / Stability: | Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label. |
| Usage: | Biotinylated antibody is designed for indirect immunofluorescence analysis by Flow Cytometry. Suggested working dilution is 1:1000. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator. |
| Expiration: | See vial label |
| Lot Number: | See vial label |
| Background: | 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.
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- *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.
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- *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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