

## Technical Data Sheet

## PE Rat Anti-Mouse CD2

## Product Information

<b>Material Number:</b>	553112
<b>Alternate Name:</b>	LFA-2
<b>Size:</b>	0.2 mg
<b>Concentration:</b>	0.2 mg/ml
<b>Clone:</b>	RM2-5
<b>Immunogen:</b>	Mouse BALB/c Thymocytes
<b>Isotype:</b>	Rat (SD) IgG2b, $\lambda$
<b>Reactivity:</b>	QC Testing: Mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

The RM2-5 antibody reacts with the immunoglobulin superfamily adhesion molecule CD2 (LFA-2), which is the major receptor for CD48 in the mouse and may be involved in T-cell activation, immunoregulation, and thymocyte maturation. In the mouse, CD2 is expressed on peripheral T lymphocytes, B lymphocytes, and NK cells, except a subpopulation of intraepithelial T lymphocytes. CD2 is present throughout mouse thymic ontogeny, except for distinct subsets of the CD4-CD8- early thymocytes. In the mouse bone marrow, CD2 is expressed on B220+ sIg+ CD43- pre-B cells, but not on CD43+ pro-B cells. RM2-5 antibody is one of a set of five anti-mouse CD2 mAbs which were classified into two groups according to their mutual competition in binding to cell surface CD2, and which block CD2-mediated cell-cell adhesion.

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

## Application Notes

## Application

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
553989	PE Rat IgG2b, $\kappa$ Isotype Control	0.1 mg	A95-1

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

## References

Ayrolidi E, Migliorati G, Cannarile L, Moraca R, Delfino DV, Riccardi C. CD2 rescues T cells from T-cell receptor/CD3 apoptosis: a role for the Fas/Fas-L system. *Blood*. 1997; 89(10):3717-3726. (Biology)

Cibotti R, Punt JA, Dash KS, Sharrow SO, Singer A. Surface molecules that drive T cell development in vitro in the absence of thymic epithelium and in the absence of lineage-specific signals. *Immunity*. 1997; 6(3):245-255. (Clone-specific: Induction)

Criado G, Feito MJ, Rojo JM. CD4-dependent and -independent association of protein tyrosine kinases to the T cell receptor/CD3 complex of CD4+ mouse T lymphocytes. *Eur J Immunol*. 1996; 26(6):1228-1234. (Clone-specific: Induction)

Davis SJ, van der Merwe PA. The structure and ligand interactions of CD2: implications for T-cell function. *Immunol Today*. 1996; 17(4):177-187. (Biology)

Hayday A, Theodoridis E, Ramsburg E, Shires J. Intraepithelial lymphocytes: exploring the Third Way in immunology. *Nat Immunol*. 2001; 2(11):997-1003. (Biology)

Kato K, Koyanagi M, Okada H, et al. CD48 is a counter-receptor for mouse CD2 and is involved in T cell activation. *J Exp Med*. 1992; 176(5):1241-1249. (Biology)

Kuo S, El Guindy A, Panwala CM, Hagan PM, Camerini V. Differential appearance of T cell subsets in the large and small intestine of neonatal mice. *Pediatr Res*. 2001; 49(4):543-551. (Biology)

Masten BJ, Yates JL, Pollard Koga AM, Lipscomb MF. Characterization of accessory molecules in murine lung dendritic cell function: roles for CD80, CD86, CD54, and CD40L. *Am J Respir Cell Mol Biol*. 1997; 16(3):335-342. (Clone-specific: Blocking)

Nakamura T, Takahashi K, Fukazawa T, et al. Relative contribution of CD2 and LFA-1 to murine T and natural killer cell functions. *J Immunol*. 1990; 145(11):3628-3634. (Immunogen: Flow cytometry)

Papavasiliou F, Misulovin Z, Suh H, Nussenzweig MC. The role of Ig beta in precursor B cell transition and allelic exclusion. *Science*. 1995; 268(5209):408-411. (Biology)

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Rakasz E, Hagen M, Sandor M, Lynch RG. Gamma delta T cells of the murine vagina: T cell response in vivo in the absence of the expression of CD2 and CD28 molecules. *Int Immunol*. 1997; 9(1):161-167. (Biology)

Rodewald HR, Awad K, Moingeon P, et al. Fc gamma RII/III and CD2 expression mark distinct subpopulations of immature CD4-CD8- murine thymocytes: in vivo developmental kinetics and T cell receptor beta chain rearrangement status. *J Exp Med*. 1993; 177(4):1079-1092. (Biology)

Teh SJ, Killeen N, Tarakhovsky A, Littman DR, Teh HS. CD2 regulates the positive selection and function of antigen-specific CD4- CD8+ T cells. *Blood*. 1997; 89(4):1308-1318. (Biology)

Yagita H, Asakawa J, Tansyo S, Nakamura T, Habu S, Okumura K. Expression and function of CD2 during murine thymocyte ontogeny. *Eur J Immunol*. 1989; 19(12):2211-2217. (Biology)

Yagita H, Nakamura T, Asakawa J, et al. CD2 expression in murine B cell lineage. *Int Immunol*. 1989; 1(1):94-98. (Biology)

Yagita H, Nakamura T, Karasuyama H, Okumura K. Monoclonal antibodies specific for murine CD2 reveal its presence on B as well as T cells. *Proc Natl Acad Sci U S A*. 1989; 86(2):645-649. (Immunogen: Blocking, Immunoprecipitation)