

**CD2 (D5L3B) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	48-65	Rabbit IgG	#P06729	914

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

CD2 (D5L3B) Rabbit mAb recognizes endogenous levels of total CD2 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala36 of human CD2 protein.

**Background**

CD2 is a transmembrane glycoprotein expressed early in thymocyte development and present on most circulating T cells (1,2). CD2 plays a role in T cell adhesion through binding to its ligand CD58 (LFA-3) (3). Stimulation of CD2 also leads to T cell activation and proliferation (2). T cells from mice deficient in both CD2 and CD28 have severe defects in T cell activation and function, while T cells deficient in either CD2 or CD28 are still capable of mounting a response, suggesting that CD2 and CD28 may have overlapping functions and may be able to compensate for each other (4). In addition, engagement of CD2 and CD58 was recently demonstrated to be the primary costimulatory signal in T cells that lack CD28 (5). CD2 expression also distinguishes a subset of plasmacytoid dendritic cells found in tumors and tonsils that express lysozyme, higher levels of IL-12 p40, and higher levels of CD80 (6).

**Background References**

1. Kamoun, M. et al. (1981) *J Exp Med* 153, 207-12.
2. Meuer, S.C. et al. (1984) *Cell* 36, 897-906.
3. Selvaraj, P. et al. *Nature* 326, 400-3.
4. Green, J.M. et al. (2000) *J Immunol* 164, 3591-5.
5. Leitner, J. et al. (2015) *J Immunol* 195, 477-87.
6. Matsui, T. et al. (2009) *J Immunol* 182, 6815-23.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting

**Cross-Reactivity Key**

**H:** Human

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