

Store at
-20°C

CD2 (D5L3B) Rabbit mAb



#53460

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UniProt ID #P06729

New 03/17

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W Endogenous	Species Cross-Reactivity H	Molecular Wt. 48-65 kDa	Isotype Rabbit IgG**
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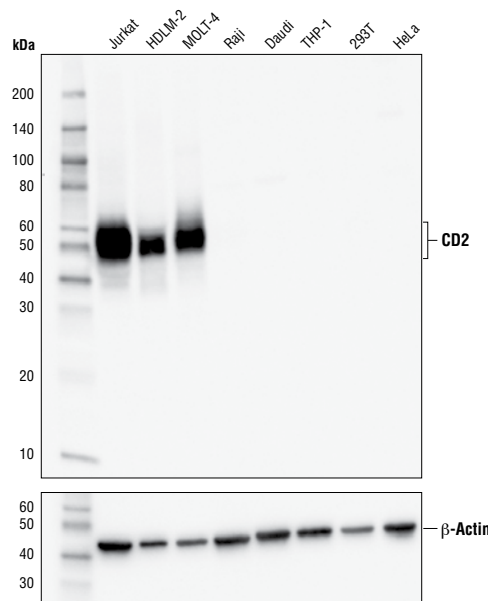
Background: CD2 is a transmembrane glycoprotein expressed early in thymocyte development and present on most circulating T cells (1, 2). CD2 plays a role in T cell adhesion through binding to its ligand CD58 (LFA-3) (3). Stimulation of CD2 also leads to T cell activation and proliferation (2). T cells 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).

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 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.



Western blot analysis of extracts from various cell lines using CD2 (D5L3B) Rabbit mAb (upper) or β -Actin (D6A8) Rabbit mAb #8457 (lower).

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

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting 1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.