

**CD80 (E3Q9V) Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 50-75	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P33681	<b>Entrez-Gene Id:</b> 941
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**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**

CD80 (E3Q9V) Rabbit mAb recognizes endogenous levels of total CD80 protein. This antibody detects a 30 kDa band of unknown origin in some cell lines.

**Source / Purification Background**

Monoclonal antibody is produced by immunizing animals with human CD80 recombinant protein.

CD80 (B7-1, BB1) and CD86 (B7-2, B70) are members of the B7 family of cell surface ligands that regulate T cell activation and immune responses. CD80 is expressed on activated antigen presenting cells, including dendritic cells, B cells, monocytes, and macrophages. CD86 is expressed on resting monocytes, dendritic cells, activated B lymphocytes, and can be further upregulated in the presence of inflammation (1-3). CD80 and CD86 are ligands for CD28, which functions as a T cell costimulatory receptor. Interaction of CD28 with CD80 or CD86 provides the second signal required for naïve T cell activation, T cell proliferation, and acquisition of effector functions (3-7). Alternatively, CD80 and CD86 also act as ligands to CTLA-4, which results in the downregulation of T cell activity (3,7-9).

**Background References**

1. Freeman, G.J. et al. (1989) *J Immunol* 143, 2714-22.
2. Azuma, M. et al. (1993) *Nature* 366, 76-9.
3. Adams, A.B. et al. (2016) *J Immunol* 197, 2045-50.
4. Linsley, P.S. et al. (1990) *Proc Natl Acad Sci U S A* 87, 5031-5.
5. Gimmi, C.D. et al. (1991) *Proc Natl Acad Sci U S A* 88, 6575-9.
6. Harding, F.A. et al. (1992) *Nature* 356, 607-9.
7. Collins, A.V. et al. (2002) *Immunity* 17, 201-10.
8. Linsley, P.S. et al. (1991) *J Exp Med* 174, 561-9.
9. Krummel, M.F. and Allison, J.P. (1995) *J Exp Med* 182, 459-65.

**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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