

**CD40 (E2Z7J) Rabbit mAb**

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

<b>Applications:</b> W, IP, IHC-Bond, IHC-P	<b>Reactivity:</b> M	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 40	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P27512	<b>Entrez-Gene Id:</b> 21939
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**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
IHC Leica Bond  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:200  
1:400  
1:400

**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.

For a carrier free (BSA and azide free) version of this product see product #19554.

**Specificity/Sensitivity**

CD40 (E2Z7J) Rabbit mAb recognizes endogenous levels of total mouse CD40 protein. This antibody does not cross-react with human CD40 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val289 of mouse CD40 protein.

**Background**

CD40, also known as tumor necrosis factor receptor superfamily member 5 (TNFRSF5), is a type I transmembrane protein expressed on the surface of B cells and professional antigen-presenting cells of the immune system, as well as on several non-hematopoietic cell types and cancers (1-4). CD40 interacts with CD40 ligand (CD40L/TNFSF5), which is expressed primarily on activated T cells but has also been reported on blood platelets, mast cells, basophils, NK cells, and B cells (5). Upon engagement with CD40L, CD40 signals through TNF receptor associated factors and MAP kinase signaling pathways, resulting in a wide variety of immune and inflammatory responses, including dendritic cell activation and cross-presentation, T cell-dependent immunoglobulin class switching, memory B cell development, and germinal center formation (6-8). The CD40/CD40L axis is essential for the initiation and progression of cellular and humoral adaptive immunity, and is an important area of interest in the study of tumor immunology, neurodegenerative diseases, vascular diseases, and inflammatory disorders (9-12).

**Background References**

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5. Gauchat, J.F. et al. (1993) *FEBS Lett* 315, 259-66.
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10. Townsend, K.P. et al. (2005) *Eur J Immunol* 35, 901-10.
11. Hassan, G.S. et al. (2012) *Immunobiology* 217, 521-32.
12. Zhang, B. et al. (2013) *Immunol Lett* 153, 58-61.

**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 **IP:** Immunoprecipitation **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

## Cross-Reactivity Key

**M:** Mouse

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