# CD40 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | CD40, Polyclonal Antibody |
| **Full Product Name** | CD40 Antibody |
| **Product Gene Name** | anti-CD40 antibody |
| **Product Synonym Names** | Tumor necrosis factor receptor superfamily member 5; B-cell surface antigen CD40; Bp50; CD40L receptor; CDw40; CD40; CD40; TNFRSF5 |
| **Clonality** | Polyclonal |
| **Host** | Rabbit |
| **Species Reactivity** | Human, Mouse |
| **Purity/Purification** | Purified Rabbit Polyclonal Antibody (Pab) |
| **Preparation and Storage** | Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles. |
| **Molecular Weight** | 30,619 Da |
| **Chromosome Location** | Chromosome: 20; NC_000020.10 (44746906..44758384). Location: 20q12-q13.2 |
| **OMIM** | 109535 |
| **3D Structure** | ModBase 3D Structure for P25942 |
| **Applications Tested/Suitable for anti-CD40 antibody** | Western Blot (WB), Immunocytochemistry (ICC), Immunohistochemistry-Paraffin (IHC-P), ELISA (EIA) |
| **Related Product Information for anti-CD40 antibody** | Receptor for TNFSF5/CD40LG. Transduces TRAF6- and MAP3K8-mediated signals that activate ERK in macrophages and B cells, leading to induction of immunoglobulin secretion. |
| **Product References and Citations for anti-CD40 antibody** | Stamenkovic I., et al.EMBO J. 8:1403-1410 (1989).Tone M., et al.Proc. Natl. Acad. Sci. U.S.A. 98:1751-1756 (2001).Kalnine N., et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.Suzuki Y., et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.Livingston R.J., et al.Submitted (OCT-2006) to the EMBL/GenBank/DDBJ databases. |
| **Other Notes** | Small volumes of anti-CD40 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for CD40 purchase** | MBS9232513 is an antibody targeting CD40. Also known as CD40 Antibody. Reactive in Human, Mouse. Host: Rabbit. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD40. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 4507581 |
| **NCBI GeneID** | 958 |
| **NCBI Accession #** | NP_001241.1 |
| **UniProt Primary Accession #** | P25942 |
| **UniProt Secondary Accession #** | Q53GN5; Q5JY15; Q5U007; Q7M4Q8; Q86YK5; Q9BYU0; E1P5S9 |

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| **UniProt Related Accession #** | P25942 |
| **GenBank Nucleotide #** | NM_001250.4 |
| **NCBI Official Full Name** | tumor necrosis factor receptor superfamily member 5 isoform 1 |
| **NCBI Official Synonym Full Names** | CD40 molecule, TNF receptor superfamily member 5 |
| **NCBI Official Symbol** | CD40 |
| **NCBI Official Synonym Symbols** | p50; Bp50; CDW40; TNFRSF5 |
| **UniProt Protein Name** | Tumor necrosis factor receptor superfamily member 5 |
| **UniProt Synonym Protein Names** | B-cell surface antigen CD40; Bp50; CD40L receptor; CDw40 |
| **Protein Family** | Tumor necrosis factor receptor superfamily |
| **UniProt Gene Name** | CD40 |
| **UniProt Synonym Gene Names** | TNFRSF5 |
| **UniProt Entry Name** | TNR5_HUMAN |
| **NCBI Protein Information** | tumor necrosis factor receptor superfamily member 5; CD40L receptor; CD40 type II isoform; B cell-associated molecule; B cell surface antigen CD40; B-cell surface antigen CD40; CD40 antigen (TNF receptor superfamily member 5); tumor necrosis factor recept |
| **NCBI Summary for CD40** | The protein encoded by this gene is a member of the TNF-receptor superfamily. This receptor has been found to be essential in mediating a broad variety of immune and inflammatory responses including T cell-dependent immunoglobulin class switching, memory B cell development, and germinal center formation. AT-hook transcription factor AKNA is reported to coordinately regulate the expression of this receptor and its ligand, which may be important for homotypic cell interactions. Adaptor protein TNFR2 interacts with this receptor and serves as a mediator of the signal transduction. The interaction of this receptor and its ligand is found to be necessary for amyloid-beta-induced microglial activation, and thus is thought to be an early event in Alzheimer disease pathogenesis. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008] |
| **UniProt Comments for CD40** | CD40: a member of the TNF-receptor superfamily. This receptor for CD40L mediates a broad variety of immune and inflammatory responses including T cell-dependent immunoglobulin class switching, memory B cell development, and germinal center formation. Defects in CD40 are the cause of hyper-IgM immunodeficiency type 3 (HIGM3). HIGM3 is an autosomal recessive disorder which includes an inability of B cells to undergo isotype switching, one of the final differentiation steps in the humoral immune system, an inability to mount an antibody-specific immune response, and a lack of germinal center formation. Two alternatively spliced isoforms have been reported. Isoform I is a type I membrane protein; isoform II is secreted.<br><br>Protein type: Receptor, cytokine; Membrane protein, integral<br><br>Chromosomal Location of Human Ortholog: 20q12-q13.2<br><br>Cellular Component: extracellular space; cell surface; intracellular membrane-bound organelle; integral to plasma membrane; cytoplasm; plasma membrane; external side of plasma membrane<br><br>Molecular Function: protein binding; signal transducer activity; enzyme binding; ubiquitin protein ligase binding; receptor activity; antigen binding<br><br>Biological Process: B cell proliferation; positive regulation of isotype switching to IgG isotypes; platelet activation; regulation of immune response; positive regulation of I-kappaB kinase/NF-kappaB cascade; positive regulation of interleukin-12 production; immune response-regulating cell surface receptor signaling pathway; activation of NF-kappaB transcription factor; cellular calcium ion homeostasis; positive regulation of MAP kinase activity; positive regulation of tyrosine phosphorylation of Stat1 protein; protein kinase B signaling cascade; positive regulation of B cell proliferation; protein complex assembly; positive regulation of transcription from RNA polymerase II promoter; positive regulation of protein amino acid phosphorylation; inflammatory response; regulation of immunoglobulin secretion; defense response to virus<br><br>Disease: Immunodeficiency With Hyper-igm, Type 3 |

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| **Research Articles on CD40** | **1.** CD40 self-assembly modulates signaling, possibly by maintaining the receptor in a quiescent state. |
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