

Active Recombinant Mouse Cd40 Protein, Fc Tagged

Cat. No. Cd40-11216M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse CD40, Fc Tag is expressed from human 293 cells (HEK293). It contains AA Val 24-Arg 193 (Accession # P27512-1). This protein carries a human IgG1 Fc tag at the C-terminus. Predicted N-terminus: Val 24
Species	Mouse
Source	HEK293
ProteinLength	24-193 aa
Description	CD40 is also known as TNFRSF5, Bp50, CDW40, MGC9013, TNFRSF5 and p50, is a member of the TNF receptor superfamily which are single transmembrane-spanning glycoproteins, and plays an essential role 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. CD40 is a costimulatory protein found on antigen presenting cells and is required for their activation. The binding of CD154 (CD40L) on TH cells to CD40 activates antigen presenting cells and induces a variety of downstream effects. CD40 contains 4 cysteine-rich repeats in the extracellular domain, and is expressed in B cells, dendritic cells, macrophages, endothelial cells, and several tumor cell lines. The extracellular domain has the cysteine-rich repeat regions, which are characteristic for many of the receptors of the TNF superfamily. Interaction of CD40 with its ligand, CD40L, leads to aggregation of CD40 molecules, which in turn interact with cytoplasmic components to initiate signaling pathways. Early studies on the CD40-CD40L system revealed its role in

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	humoral immunity. Defects in CD40 result in hyper-IgM immunodeficiency type 3 (HIGM3), an autosomal recessive disorder characterized by an inability of B cells to undergo isotype switching, as well as an inability to mount an antibody-specific immune response, and a lack of germinal center formation.
Form	Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5 with trehalose as protectant.
Bio-activity	Immobilized Mouse CD40, Fc Tag at 2 µg/mL (100 µL/well) can bind Mouse CD40 Ligand, His Tag with a linear range of 9-78 ng/mL.
Molecular Mass	The protein has a calculated MW of 45.0 kDa. The protein migrates as 53-58 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU/µg by the LAL method/rFC method.
Purity	>95% as determined by SDS-PAGE. >95% as determined by SEC-MALS.
Storage	This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

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Gene Name	Cd40 CD40 antigen [Mus musculus (house mouse)]
Official Symbol	Cd40
Synonyms	CD40; CD40 antigen; tumor necrosis factor receptor superfamily member 5; CD40L receptor; B-cell surface antigen CD40; T-cell differentiation antigen; tumor necrosis factor receptor superfamily, member 5; IGM; p50; Bp50; GP39; IMD3; TRAP; HIGM1; T-BAM; Tnfrsf5; AI326936;
Gene ID	21939
mRNA Refseq	NM_011611
Protein Refseq	NP_035741
UniProt ID	P27512

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