

## Active Recombinant Human CD40 protein, Fc/Avi-tagged, Biotinylated

Cat. No. CD40-051H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Biotinylated Recombinant Human CD40(Glu21-Arg193) protein, fused to Fc/Avi tag at the C-terminus, was expressed in CHO cells .
<b>Species</b>	Human
<b>Source</b>	CHO
<b>ProteinLength</b>	Glu21-Arg193
<b>Description</b>	<p>CD40, also known as TNFRSF5, is a 45-50 kDa type I transmembrane glycoprotein member of the TNF receptor superfamily (1). Mature human CD40 consists of a 173 amino acid (aa) extracellular domain, a transmembrane domain, and a 62 aa cytoplasmic domain (2). The extracellular domain of human CD40 shares 58% and 56% aa sequence identity with mouse and rat CD40, respectively. An antagonistic soluble human CD40 splice variant contains an alternate sequence within the extracellular and transmembrane domains and lacks a cytoplasmic domain (3). CD40 is expressed on the surface of B cells, dendritic cells, macrophages, monocytes and platelets, as well as endothelial and epithelial cells (4, 5). Interaction of CD40 with its ligand, CD40 Ligand, leads to the aggregation of CD40 molecules resulting in the initiation of bidirectional intracellular signaling in both CD40 and CD40 Ligand expressing cells (6). CD40 ligation by CD40 Ligand promotes B cell activation and T cell-dependent humoral responses (7, 8). CD40 serves multiple functions in both hematopoietic and epithelial cancers and is a target for tumor immunotherapy (9, 10).</p>

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Dysregulation of CD40/CD40 Ligand expression and interactions contributes to the immune deficiency associated with HIV infection and AIDS (11, 12). It is also implicated in the pathology of multiple cardiovascular diseases including atherosclerosis, atherothrombosis, and restenosis (13, 14).

**Predicted N Terminal** Glu21

**Form** Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

**Bio-activity** Measured by its binding ability in a functional ELISA. When Recombinant Human CD40 Fc (HEK293-expressed) mobilized at 2 µg/mL (100 µL/well), the concentration of Recombinant Human CD40 Fc Chimera Avi-tag that produces 50% optimal binding is 40-320 ng/mL.

**Molecular Mass** 61-66 kDa, under reducing conditions

**Endotoxin** <1.0 EU per 1 µg of the protein by the LAL method.

**Purity** >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Applications** Bioactivity

**Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.

**Reconstitution** Reconstitute at 500 µg/mL in PBS.

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**Conjugation**                      Biotin

## GENE INFORMATION

**Gene Name**                      CD40 CD40 molecule, TNF receptor superfamily member 5 [ Homo sapiens ]

**Official Symbol**                CD40

**Synonyms**

CD40; CD40 molecule, TNF receptor superfamily member 5; TNFRSF5, tumor necrosis factor receptor superfamily, member 5; tumor necrosis factor receptor superfamily member 5; Bp50; p50; 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 receptor superfamily, member 5; nerve growth factor receptor-related B-lymphocyte activation molecule; CDW40; TNFRSF5; MGC9013;


**Gene ID**                            958

**mRNA Refseq**                    NM\_001250

**Protein Refseq**                  NP\_001241

**MIM**                                109535

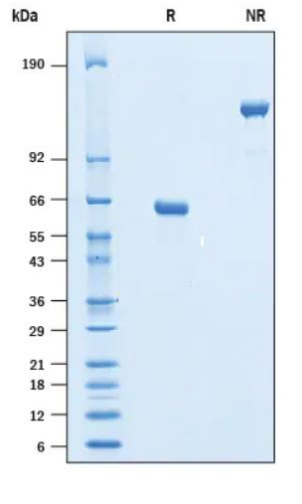
**UniProt ID**                        P25942

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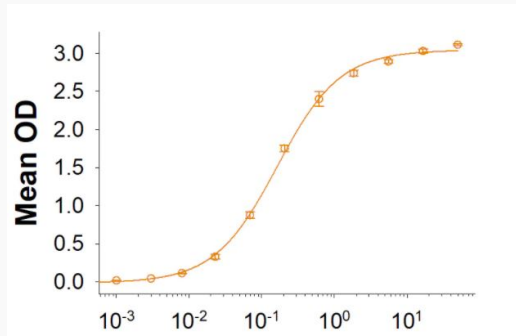
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**SDS-PAGE**



2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

**Binding Activity**



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