

## CD40 Protein, Human, Recombinant (hFc & Avi), Biotinylated

### General Information

Synonyms:	TNFRSF5;Bp50;CD40 molecule, TNF receptor superfamily member 5;p50;CDW40
Protein Construction:	A DNA sequence encoding the human CD40 ( NP_001241.1 ) (Met1-Arg193) was expressed with a C-terminal Fc region of human IgG1 tag followed by an AVI tag. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Glu 21
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P25942
Molecular Weight:	47.7 kDa (predicted)

### QC Testing

Biological Activity:	Measured by its binding ability in a functional ELISA. Immobilized Fc-CD40L at 10 µg/mL (100 µL/well) can bind CD40-Fc-Avi , the EC50 of CD40-Fc-Avi is 40-80 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

**Reconstitution:**  
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

**Stability & Storage:**

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

*Actual storage temperature shall be subject to the COA.*

**Shipping:**

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

CD40, also known as TNFRSF5, is a member of the TNF receptor superfamily which are single transmembrane-spanning glycoproteins. CD40 protein 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 protein is expressed in B cells, dendritic cells, macrophages, endothelial cells, and several tumor cell lines. Defects in CD40 result in hyper-IgM immunodeficiency type 3 (HIGM3). In addition, CD40/CD40L interaction is found to be necessary for amyloid-beta-induced microglial activation, and thus is thought to be an early event in Alzheimer disease pathogenesis. Cancer Immunotherapy Co-stimulatory Immune Checkpoint Targets Immune Checkpoint Immune Checkpoint Detection: Antibodies Immune Checkpoint Detection: ELISA Antibodies Immune Checkpoint Detection: FCM Antibodies Immune Checkpoint Detection: ICC Antibodies Immune Checkpoint Detection: IP Antibodies Immune Checkpoint Detection: WB Antibodies Immune Checkpoint Proteins Immune Checkpoint Targets Immunotherapy Targeted Therapy

### Reference

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