

## CD40 Protein, Rhesus, Recombinant (hFc)

### General Information

Synonyms:	CD40 molecule, TNF receptor superfamily member 5
Protein Construction:	A DNA sequence encoding the rhesus CD40 (NP_001252791.1) (Met1-Arg193) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Glu 21
Species:	Rhesus
Expression Host:	HEK293 Cells
Accession:	F6SNI1
Molecular Weight:	46.2 kDa (predicted)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % 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

van Kooten C, et al. (2000). CD40-CD40 ligand. *J Leukoc Biol.* 67 (1): 2-17.

Bhushan A, et al. (2002). CD40:CD40L interactions in X-linked and non-X-linked hyper-IgM syndromes. *Immunol Res.* 24 (3): 311-24.

Chatzigeorgiou A, et al. (2009) CD40/CD40L signaling and its implication in health and disease. *Biofactors.* 35(6): 474-83.

Li R, et al. (2009) Expression of CD40 and CD40L in Gastric Cancer Tissue and Its Clinical Significance. *Int J Mol Sci.* 10 (9): 3900-17.

Lievens D, et al. (2009) The multi-functionality of CD40L and its receptor CD40 in atherosclerosis. *Thromb Haemost.* 102(2): 206-14.

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