

# Canine CD40 / TNFRSF5 Protein (His Tag)



Sino Biological  
Biological Solution Specialist

Catalog Number: 70105-D08H

## General Information

### Gene Name Synonym:

CD40

### Protein Construction:

A DNA sequence encoding the canine CD40 (Q7YRL5) (Met1-Ala194) was expressed with a C-terminal polyhistidine tag.

**Source:** Canine

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Glu 21

### Molecular Mass:

The recombinant canine CD40 comprises 185 amino acids and has a predicted molecular mass of 20.5 kDa. The apparent molecular mass of the protein is approximately 33 kDa in SDS-PAGE under reducing conditions due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

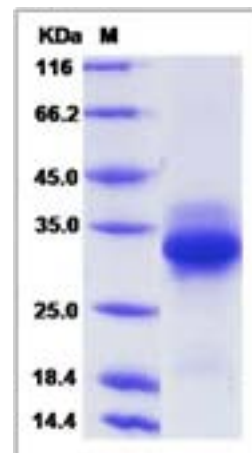
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

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.

## References

1. van Kooten C, *et al.* (2000). CD40-CD40 ligand. *J Leukoc Biol.* 67 (1): 2-17.
2. Bhushan A, *et al.* (2002). CD40:CD40L interactions in X-linked and non-X-linked hyper-IgM syndromes. *Immunol Res.* 24 (3): 311-24.
3. Chatzigeorgiou A, *et al.* (2009) CD40/CD40L signaling and its implication in health and disease. *Biofactors.* 35(6): 474-83.

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For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

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