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Datasheet for ABIN2870723

CD40 Protein (CD40) (AA 24-193) (His tag)

2 Images

1 Publication

Overview

Quantity:	100 µg
Target:	CD40
Protein Characteristics:	AA 24-193
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This CD40 protein is labelled with His tag.

Product Details

Sequence:	AA 24-193
Characteristics:	This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 20.8 kDa. The protein migrates as 30 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	CD40
Alternative Name:	CD40 (CD40 Products)

Target Details

Background: 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 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.

Molecular Weight: 20.8 kDa

UniProt: [P27512](#)

Pathways: [NF-kappaB Signaling](#), [Cellular Response to Molecule of Bacterial Origin](#), [M Phase](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Production of Molecular Mediator of Immune Response](#), [Cancer Immune Checkpoints](#)

Application Details

Restrictions: For Research Use only

Handling

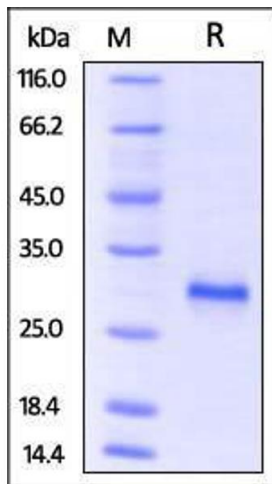
Format: Lyophilized

Buffer: PBS, pH 7.4

Handling Advice: Please avoid repeated freeze-thaw cycles.

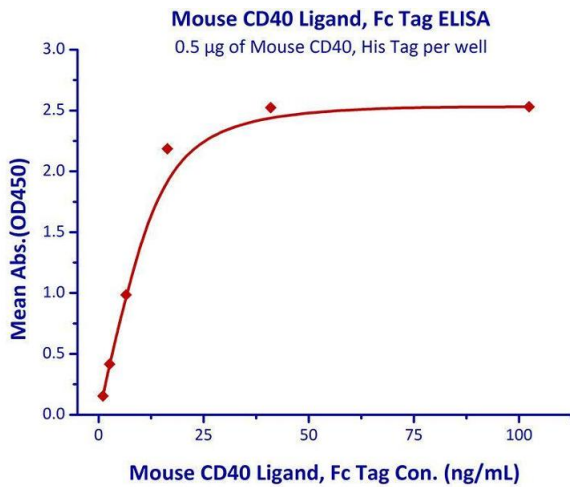
Storage: -20 °C

Product cited in: Aghevlian, Wu, Raie, Tumbale, Kare, Seo, Ferrara: "Pre-clinical evaluation of immunoPET imaging using agonist CD40 monoclonal antibody in pancreatic tumor-bearing mice." in: **Nuclear medicine and biology**, Vol. 98-99, pp. 8-17 ([PubMed](#)).



SDS-PAGE

Image 1. Mouse CD40, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



Binding Studies

Image 2. Immobilized Mouse CD40, His Tag with a linear range of 1-16 ng/mL.