Cynomolgus CD40 / TNFRSF5 Protein, His Tag (MALS verified)

Catalog # CD0-C52H6

Synonym

CD40,Bp50,CDW40,MGC9013,TNFRSF5,p50

Source

Cynomolgus CD40, His Tag(CD0-C52H6) is expressed from human 293 cells (HEK293). It contains AA Glu 21 - Arg 193 (Accession # G7PG38).
Predicted N-terminus: Glu 21

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 21.1 kDa. The protein migrates as 26-32 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

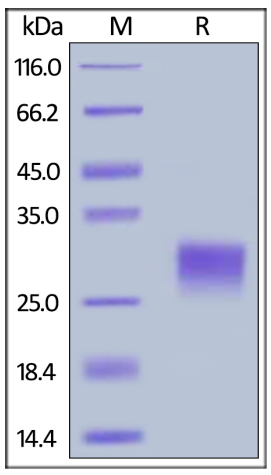
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

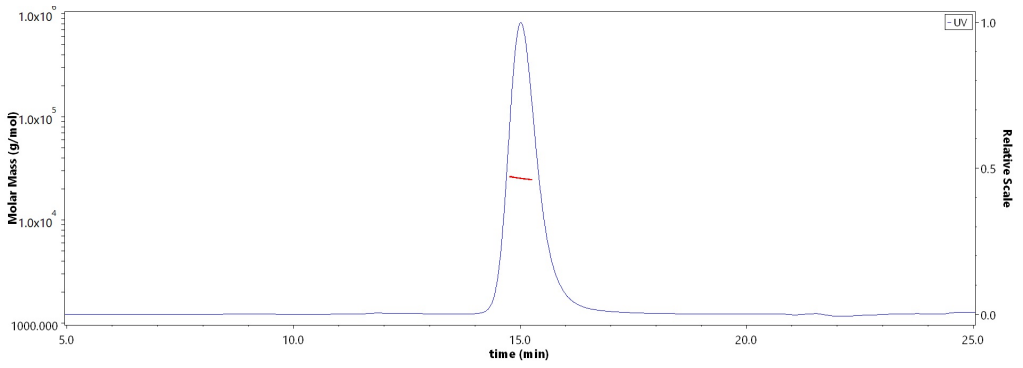
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



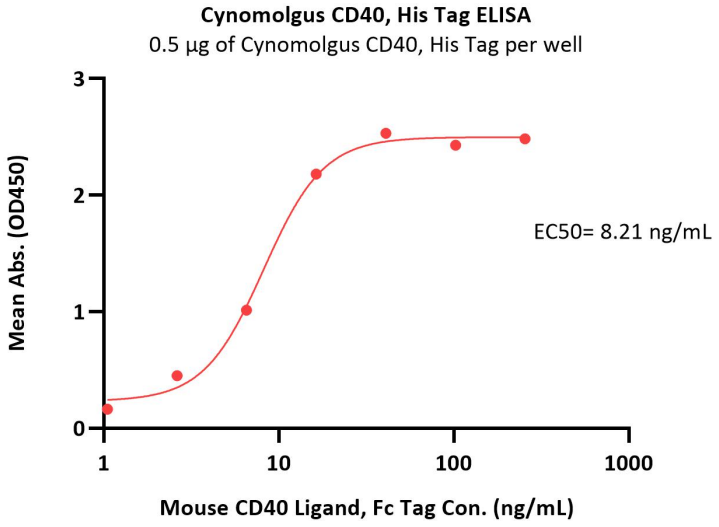
Cynomolgus CD40, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

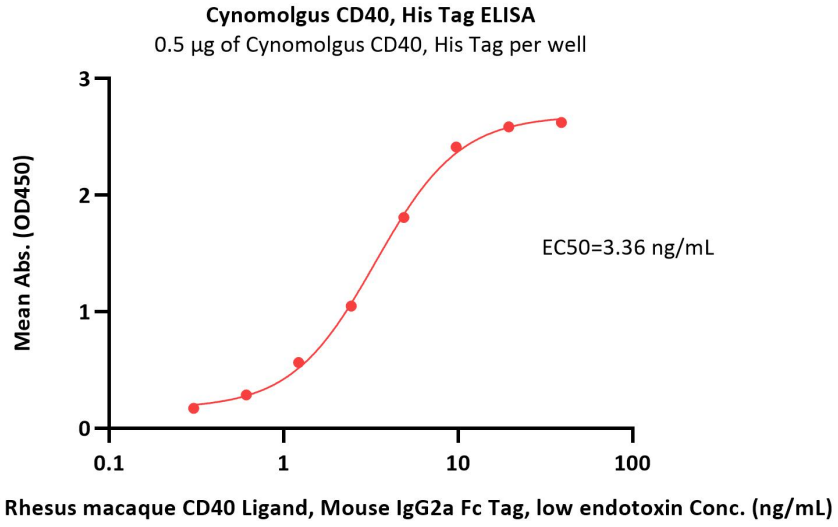


The purity of Cynomolgus CD40, His Tag (Cat. No. CD0-C52H6) is more than 90% and the molecular weight of this protein is around 20-33 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Cynomolgus CD40, His Tag (Cat. No. CD0-C52H6) at 5μg/mL (100 μL/well) can bind Mouse CD40 Ligand, Fc Tag (Cat. No.CDL-M526x) with a linear range of 1-16 ng/mL (QC tested).



Immobilized Cynomolgus CD40, His Tag (Cat. No. CD0-C52H6) at 5 μg/mL (100 μL/well) can bind Human / Rhesus macaque CD40 Ligand, Mouse IgG2a Fc Tag, low endotoxin (Cat. No. CDL-H5256) with a linear range of 0.3-5 ng/mL (Routinely tested).

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 cysteinerich 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.

Clinical and Translational Updates