Human CD40 / TNFRSF5 Protein, His Tag

Catalog # CD0-H5228AI2

Application

Human CD40 Protein, His Tag AIDD-Ready protein is designed for direct use in SPR assays. It is supplied in a sugar-free, glycerol-free formulation to eliminate refractive index interference in SPR. No desalting or buffer exchange is required before use, simplifying the SPR workflow. Each tube features a unique barcode and bottom code for precise sample identification, supporting automated, high-throughput workflows and accelerating the transition from AI prediction to wet-lab validation.

Features and Advantages

- **Directly compatible with SPR:** No desalting or buffer exchange required; supplied as a liquid to reduce sample preparation and improve experimental efficiency.
- **High batch-to-batch consistency:** Each lot is released using SPR QC to ensure experimental reproducibility.
- **Validated with representative drugs:** SPR binding activity is validated using representative drug antibodies to ensure suitability for drug screening and evaluation.
- **Unique Tube Identification:** Each tube features a unique barcode and bottom code, supporting automated and high-throughput workflows. To request the product manifest, please contact our Technical Support team or click the button below.

Synonyms

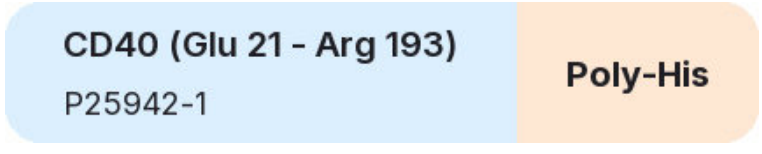
CD40, Bp50, CDW40, MGC9013, TNFRSF5, p50

Source

Human CD40 Protein, His Tag (CD0-H5228AI2) is expressed from human 293 cells (HEK293). It contains AA Glu 21 - Arg 193 (Accession # P25942-1).

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 27-32 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-HPLC.

Formulation

Formulated in a proprietary trehalose-free buffer, supplied ready-to-use for SPR/BLI analysis - no buffer exchange required.

For detailed formulation, please refer to the batch-specific COA.

Shipping and Storage

This product is supplied and shipped on dry ice.

Please avoid repeated freeze-thaw cycles.

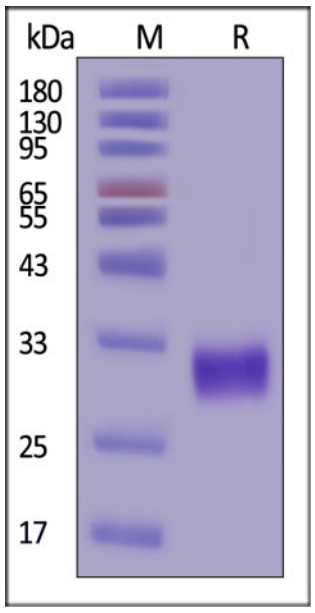
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

ACRO Quality Management System

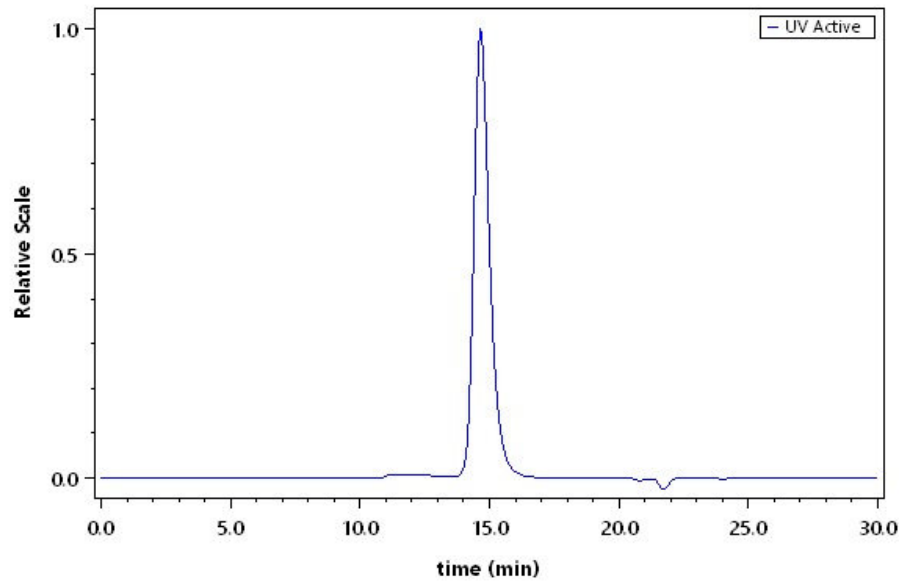
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



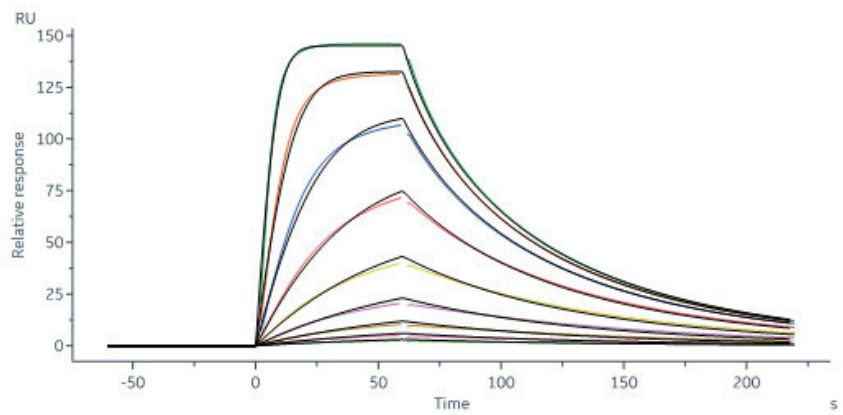
Human CD40 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-HPLC



The purity of Human CD40 Protein, His Tag (Cat. No. CD0-H5228AI2) was greater than 90% as determined by SEC-HPLC.

Activity-SPR



Monoclonal Anti-CD40 antibody, Human IgG1 (AM711) captured on Protein A Chip can bind Human CD40 Protein, His Tag (Cat. No. CD0-H5228AI2) with an affinity constant of 10.5 nM as determined in a SPR assay (Biacore 8K) (QC 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.

Discounts, Gifts, and more!