Unconjugated Human TPBG / 5T4 Protein, His,Avitag™

Catalog # TPG-H52E5AI2

Application

Unconjugated Human TPBG Protein, His,Avitag 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

TPBG, 5T4, M6P1, 5T4AG, WAIF1, 5T4 oncofetal antigen, Trophoblast glycoprotein, 5T4 oncofetal trophoblast glycoprotein

Source

Unconjugated Human TPBG Protein, His,Avitag (TPG-H52E5AI2) is expressed from human 293 cells (HEK293). It contains AA Ser 32 - Ser 355 (Accession # Q13641-1).

Predicted N-terminus: Ser 32

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 39.0 kDa. The protein migrates as 43-65 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.

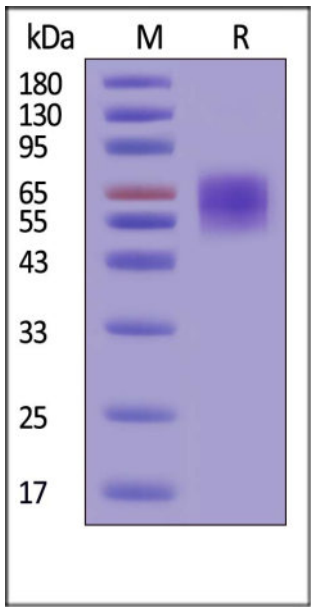
This product is stable after storage at:

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

ACRO Quality Management System

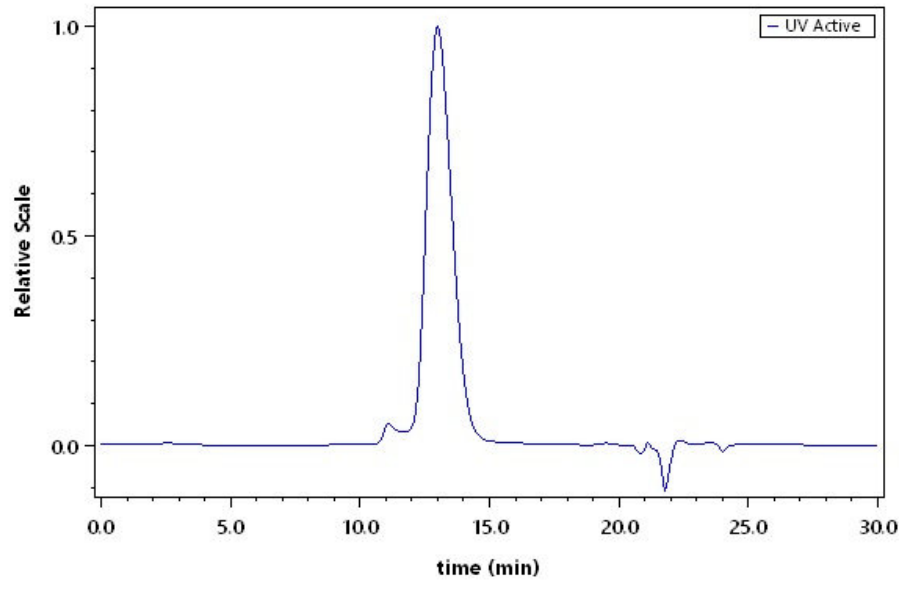
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



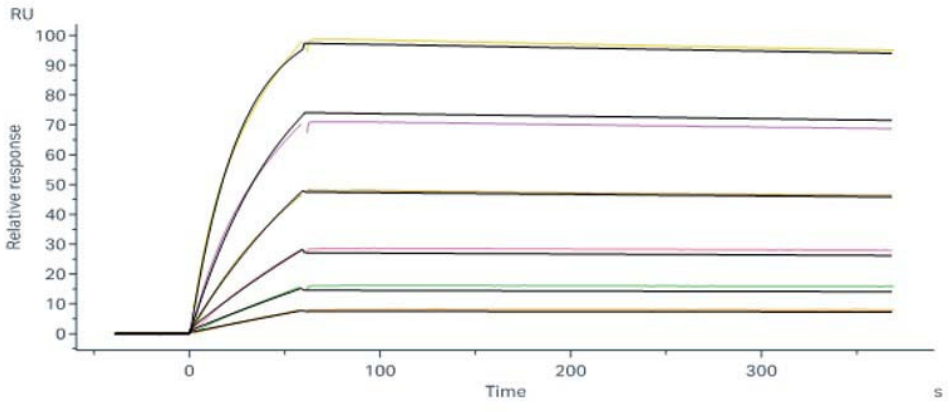
Unconjugated Human TPBG Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-HPLC



The purity of Unconjugated Human TPBG Protein, His,Avitag (Cat. No. TPG-H52E5AI2) was greater than 90% as determined by SEC-HPLC.

Activity-SPR



Naptumomab(biosimilar) immobilized on CM5 Chip can bind Unconjugated Human TPBG Protein, His,Avitag (Cat. No. TPG-H52E5AI2) with an affinity constant of 934 pM as determined in a SPR assay (Biacore 8K) (QC tested).

Background

Trophoblast glycoprotein (TPBG), also known as 5T4, is the therapeutic target of several anticancer agents currently in clinical development, largely due to its high expression in tumors and low expression in normal adult tissues.This gene encodes a leucine-rich transmembrane glycoprotein that may be involved in cell adhesion. TPBG is expressed by all types of trophoblasts as early as 9 weeks of development.

Discounts, Gifts, and more!