

Biotinylated Human TROP-2 / TACSTD2 Protein, His,Avitag™ (MALS verified)

Catalog # TR2-H82E5



BIOSYSTEMS
Acro

Synonyms

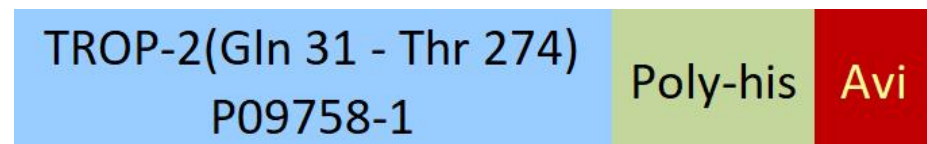
TACSTD2, GA733-1, M1S1, TROP2

Source

Biotinylated Human TROP-2, His,Avitag (TR2-H82E5) is expressed from human 293 cells (HEK293). It contains AA Gln 31 - Thr 274 (Accession # [P09758-1](#)).

Predicted N-terminus: Gln 31

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 31.2 kDa. The protein migrates as 42-50 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>90% as determined by SDS-PAGE.

>95% 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.

Shipping and Storage

This product is shipped at ambient temperature.

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

Please avoid repeated freeze-thaw cycles.

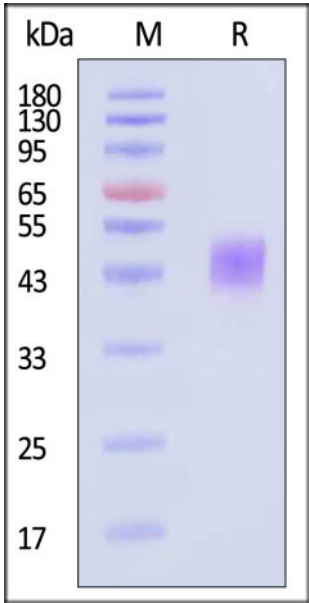
This product is stable after storage at:

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

ACRO Quality Management System

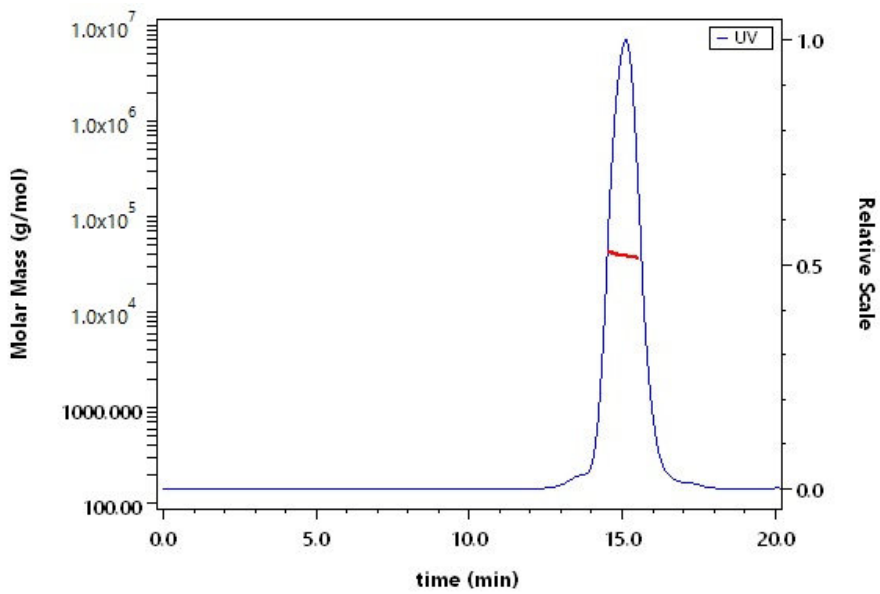
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



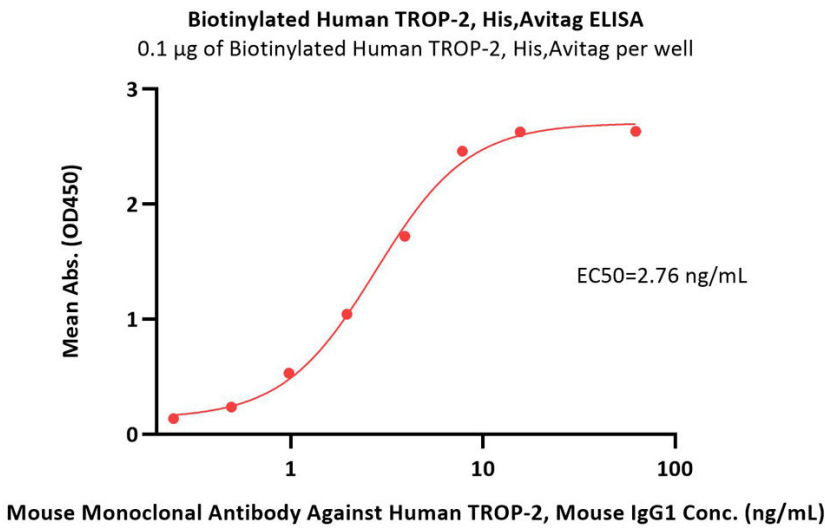
Biotinylated Human TROP-2, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



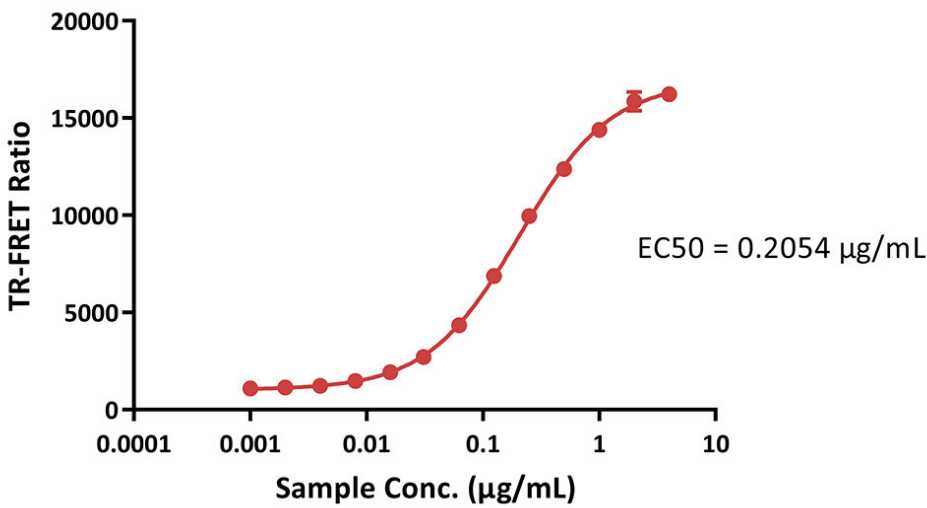
The purity of Biotinylated Human TROP-2, His,Avitag (Cat. No. TR2-H82E5) is more than 95% and the molecular weight of this protein is around 32-47 kDa verified by SEC-MALS.

Bioactivity-ELISA



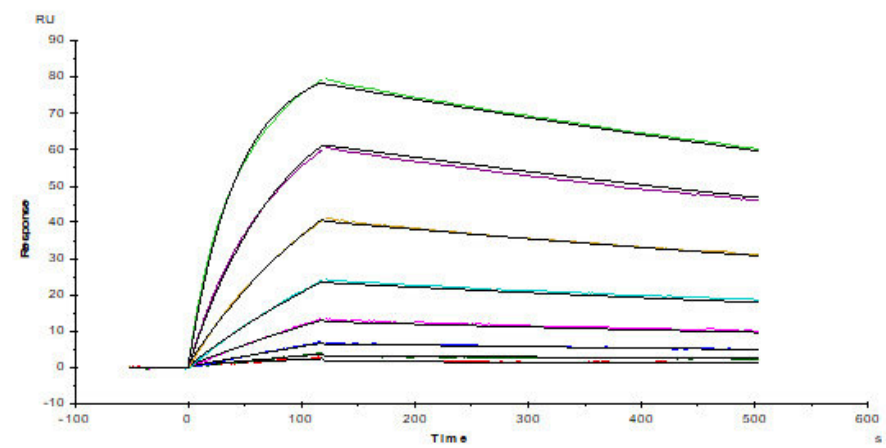
Immobilized Biotinylated Human TROP-2, His,Avitag (Cat. No. TR2-H82E5) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Mouse Monoclonal Antibody Against Human TROP-2, Mouse IgG1 with a linear range of 0.5-4 ng/mL (QC tested).

Bioactivity-TR-FRET



In this TR-FRET assay, Streptavidin Protein Europium chelate (for TR-FRET) (Cat. No. FRT-TD09) is used as the Donor and Monoclonal Anti-Human IgG Antibody FA-Labeled (for TR-FRET) (Cat. No. FRT-TA02) is used as the Acceptor. Biotinylated Human TROP-2, His,Avitag (Cat. No. TR2-H82E5), at 0.3125 ng/well, can bind to the Sacituzumab with a linear detection range of 4-0.001 µg/mL (Routinely tested).

Bioactivity-SPR



Captured Trop2 antibody on CM5 chip via anti-mouse antibodies surface can bind Biotinylated Human TROP-2, His,Avitag (Cat. No. TR2-H82E5) with an affinity constant of 6.35 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

Background

TROP-2 is a single-copy gene in human cells, and encodes a type-1 transmembrane glycoprotein which is over-expressed in various malignancies, also referred to as tumor associated calcium signal transducer 2 (TACSTD2), GA733-1 or M1S1. TROP-2 is related to epithelial cell adhesion molecule (EpCAM), also called TROP-1, gp40, and KSA. Trop-1 and Trop-2 are homologous to serum IGF-II-binding proteins and appear as signal transducers. Thus, they likely represent novel cell-surface receptors and may play a role in regulating the growth of carcinoma cells.



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