



## Synonym

TACSTD2,GA733-1,M1S1,TROP2

#### Source

Human TROP-2, His Tag(TR2-H5223) is expressed from human 293 cells (HEK293). It contains AA Gln 31 - Thr 274 (Accession # <u>P09758-1</u>). Predicted N-terminus: Gln 31

## **Molecular Characterization**

TROP-2(Gln 31 - Thr 274) P09758-1

Poly-his

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

The protein has a calculated MW of 29.4 kDa. The protein migrates as 43-55 kDa when calibrated against Star Ribbon Pre-stained Protein Marker 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

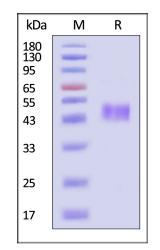
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

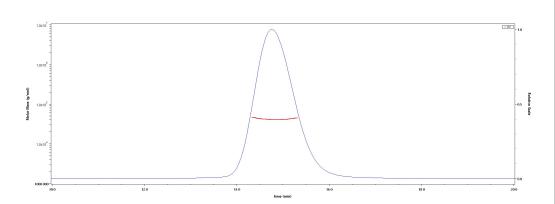
## **SDS-PAGE**



Human TROP-2, 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% (With Star Ribbon Pre-stained Protein Marker).

## **Bioactivity-ELISA**

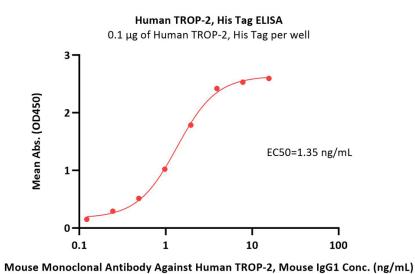
## **SEC-MALS**



The purity of Human TROP-2, His Tag (Cat. No. TR2-H5223) is more than 90% and the molecular weight of this protein is around 33-50 kDa verified by SEC-MALS.

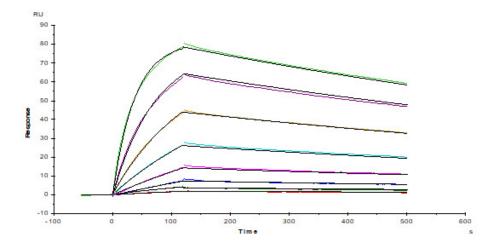
<u>Report</u>





Immobilized Human TROP-2, His Tag (Cat. No. TR2-H5223) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Mouse Monoclonal Antibody Against Human TROP-2, Mouse IgG1 with a linear range of 0.1-2 ng/mL (QC tested).

## **Bioactivity-SPR**



Captured Trop2 antibody on CM5 chip via anti-mouse antibodies surface can bind Human TROP-2, His Tag (Cat. No. TR2-H5223) with an affinity constant of 5.98 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.

## **Clinical and Translational Updates**

