## Biotinylated Human GUCY2C / Guanylyl cyclase C Protein, His,Avitag™ (MALS verified)

Catalog # GUC-H82E9



### **Synonym**

GUCY2C,GUC2C,STAR,STA receptor,hSTAR,GC-C

#### Source

Biotinylated Human GUCY2C, His, Avitag(GUC-H82E9) is expressed from human 293 cells (HEK293). It contains AA Ser 24 - Gln 430 (Accession # P25092-1).

Predicted N-terminus: Ser 24

### **Molecular Characterization**

GUCY2C(Ser 24 - Gln 430) P25092-1 Poly-his Avi

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

The protein has a calculated MW of 49.6 kDa. The protein migrates as 65-95 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> 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.

## Endotoxin

Less than 0.1 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  $\mu m$  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**

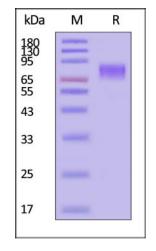
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

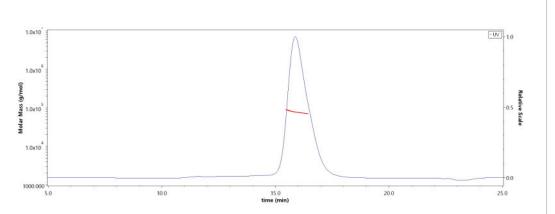
### **SDS-PAGE**



Biotinylated Human GUCY2C, His, Avitag 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**





The purity of Biotinylated Human GUCY2C, His, Avitag (Cat. No. GUC-H82E9) is more than 90% and the molecular weight of this protein is around 62-82 kDa verified by SEC-MALS.

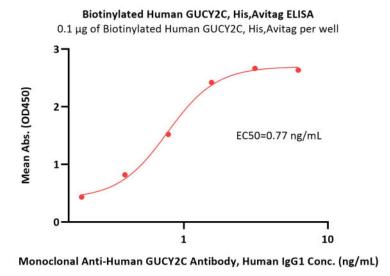
Report



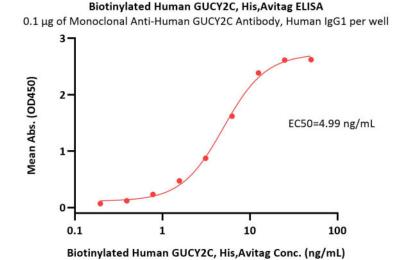
# Biotinylated Human GUCY2C / Guanylyl cyclase C Protein, His,Avitag™ (MALS verified)

Catalog # GUC-H82E9





Immobilized Biotinylated Human GUCY2C, His,Avitag (Cat. No. GUC-H82E9) at 1  $\mu$ g/mL (100  $\mu$ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate, can bind Monoclonal Anti-Human GUCY2C Antibody, Human IgG1 with a linear range of 0.2-2 ng/mL (QC tested).



Immobilized Monoclonal Anti-Human GUCY2C Antibody, Human IgG1 at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human GUCY2C, His,Avitag (Cat. No. GUC-H82E9) with a linear range of 0.2-6 ng/mL (Routinely tested).

# Background

GUCY2C (Guanylyl Cyclase C), also known as heat-stable enterotoxin receptor, is a type I transmembrane protein of the guanylate cyclase (gc) family that signal by producing cGMP. Guanylate cyclase C (GUCY2C) and its hormones guanylin and uroguanylin have recently emerged as one paracrine axis defending intestinal mucosal integrity against mutational, chemical, and inflammatory injury. GUCY2C murine CAR-T cells recognized and killed human colorectal cancer cells endogenously expressing GUCY2C. Thus, we have identified a human GUCY2C-specific CAR-T cell therapy approach that may be developed for the treatment of GUCY2C-expressing metastatic colorectal cancer.

# **Clinical and Translational Updates**

