

**Synonym**

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

**Source**

FITC-Labeled Human GUCY2C Protein, His Tag (GUC-HF2H9) is produced via conjugation of FITC to Human GUCY2C Protein, His Tag with a new generation site-specific technology under Star Staining labeling platform.

Human GUCY2C Protein, His Tag 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)<br>P25092-1 | Poly-his |
|--------------------------------------|----------|

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

The protein has a calculated MW of 62.3 kDa.

**Conjugate**

FITC

Excitation source: 488 nm spectral line, argon-ion laser

Excitation Wavelength: 488 nm

Emission Wavelength: 535 nm

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**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.

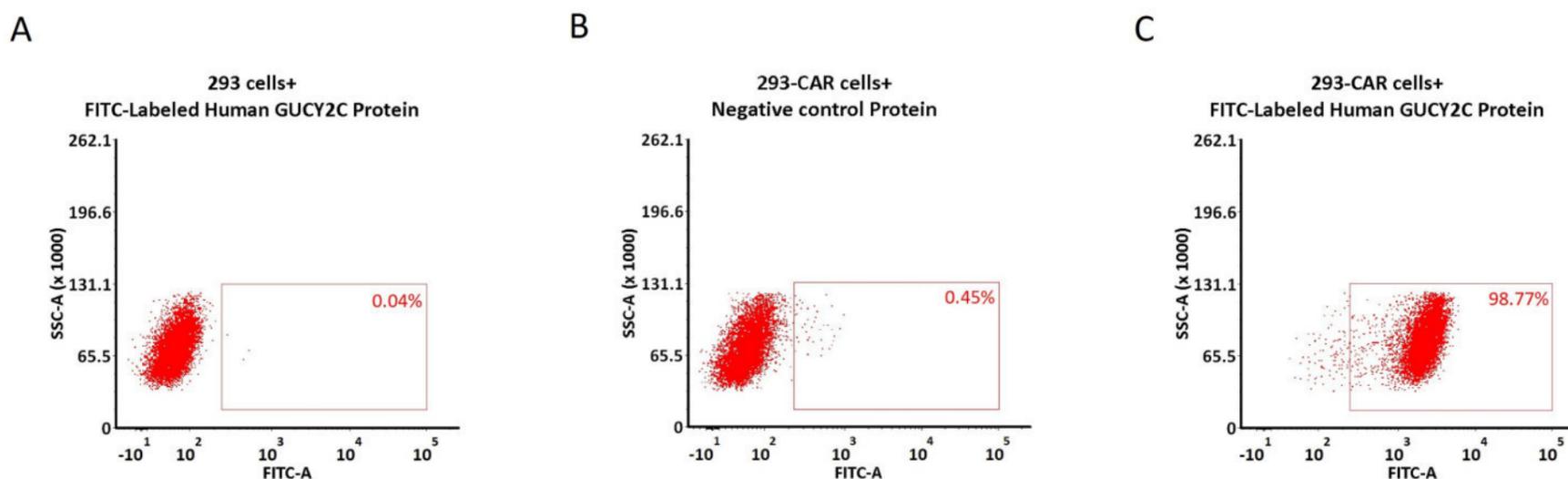
*Please protect from light and avoid repeated freeze-thaw cycles.*

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.

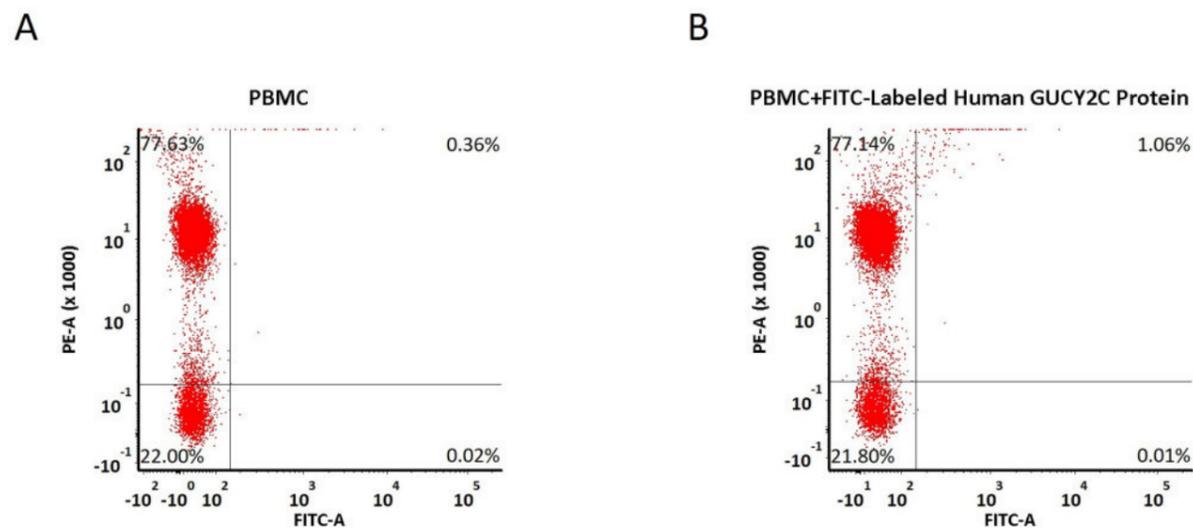
**Evaluation of CAR expression**

FACS Analysis of Anti-GUCY2C CAR Expression



5e5 of anti-GUCY2C CAR-293 cells were stained with 100 µL of 1 µg/mL of FITC-Labeled Human GUCY2C Protein, His Tag (Cat. No. GUC-HF2H9) and negative control protein respectively (Fig. C and B), and non-transfected 293 cells were used as a control (Fig. A). FITC signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs



5e5 of PBMCs were stained with FITC-Labeled Human GUCY2C Protein, His Tag (Cat. No. GUC-HF2H9) and anti-CD3 antibody, washed and then analyzed with FACS. PE signal was used to evaluate the expression of CD3+ T cells in PBMCs, and FITC signal was used to evaluate the non-specific binding activity to PBMCs (QC 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

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.