



## Synonym

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

## Source

PE-Labeled Human GUCY2C Protein, His Tag (GUC-HP2H9) is produced via conjugation of PE 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)  
P25092-1**

**Poly-his**

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

## Conjugate

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

## Purity

>90% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, 0.2% BSA, 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:

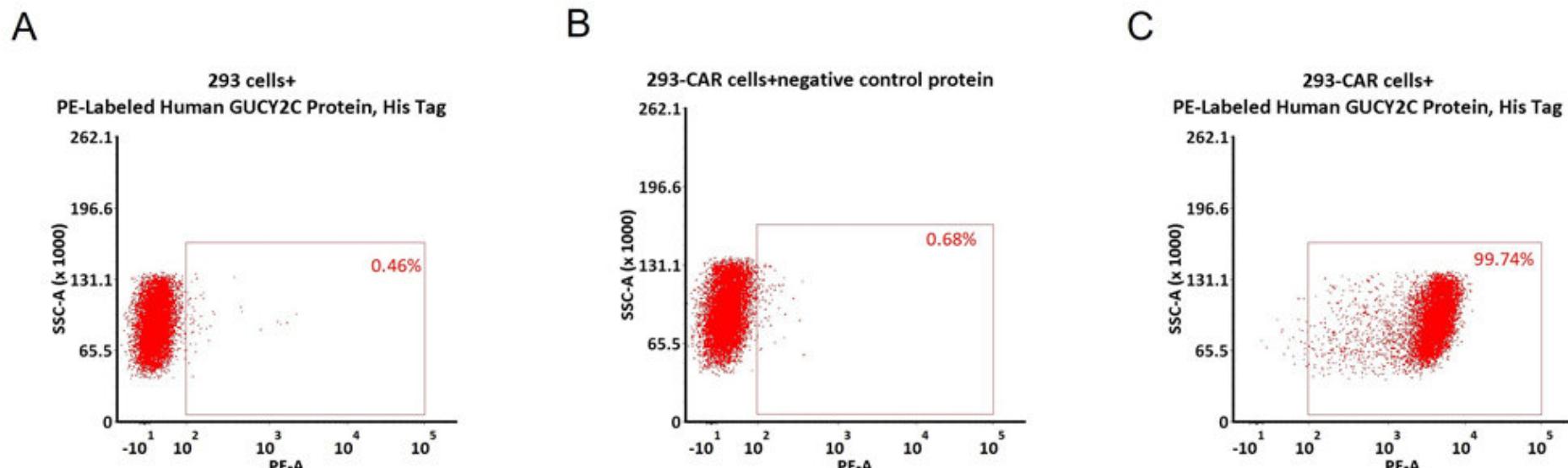
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**Star Staining** fluorescent-labeled products are developed by a new-generation site-specific labeling technology with Star Standard quality at ACROBiosystems

- ★ Using new-generation site-specific labeling technology to maintain natural bioactivity.
- ★ No non-specific binding to non-transduced PBMCs.
- ★ High specificity and sensitivity verified by flow cytometry.
- ★ High homogeneity and high batch-to-batch consistency.

## Evaluation of CAR expression

FACS Analysis of Anti-GUCY2C CAR Expression



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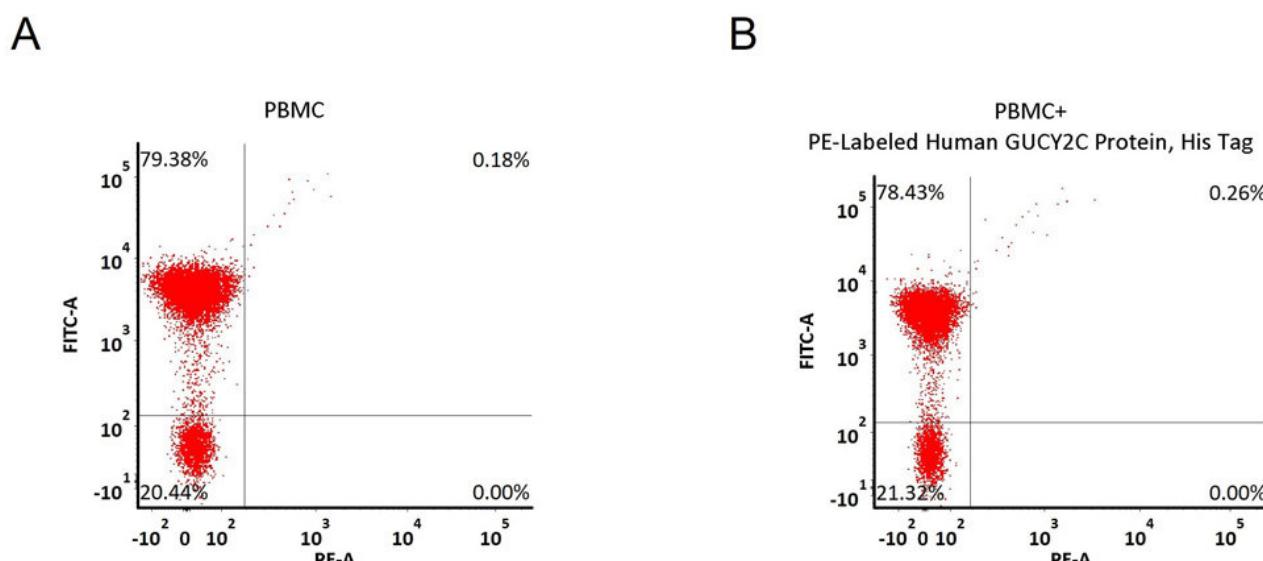


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5e5 of anti-GUCY2C CAR-293 cells were stained with 100  $\mu$ L of 1:50 dilution (2  $\mu$ L stock solution in 100  $\mu$ L FACS buffer) of PE-Labeled Human GUCY2C Protein, His Tag (Cat. No. GUC-HP2H9) and negative control protein respectively (Fig. C and B), and non-transfected 293 cells were used as a control (Fig. A). PE signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs



5e5 of PBMCs were stained with PE-Labeled Human GUCY2C Protein, His Tag (Cat. No. GUC-HP2H9) and anti-CD3 antibody, washed and then analyzed with FACS. FITC signal was used to evaluate the expression of CD3+ T cells in PBMCs, and PE 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.

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