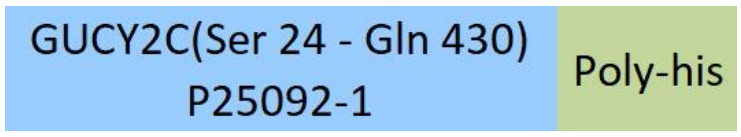
Synonym

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

Source

Alexa Fluor 555-Labeled Human GUCY2C Protein, His Tag (GUC-HA2H6) is produced via conjugation of AF555 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



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

The protein has a calculated MW of 62.9 kDa.

Conjugate

AF555

Excitation Wavelength: 561 nm

Emission Wavelength: 572 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.

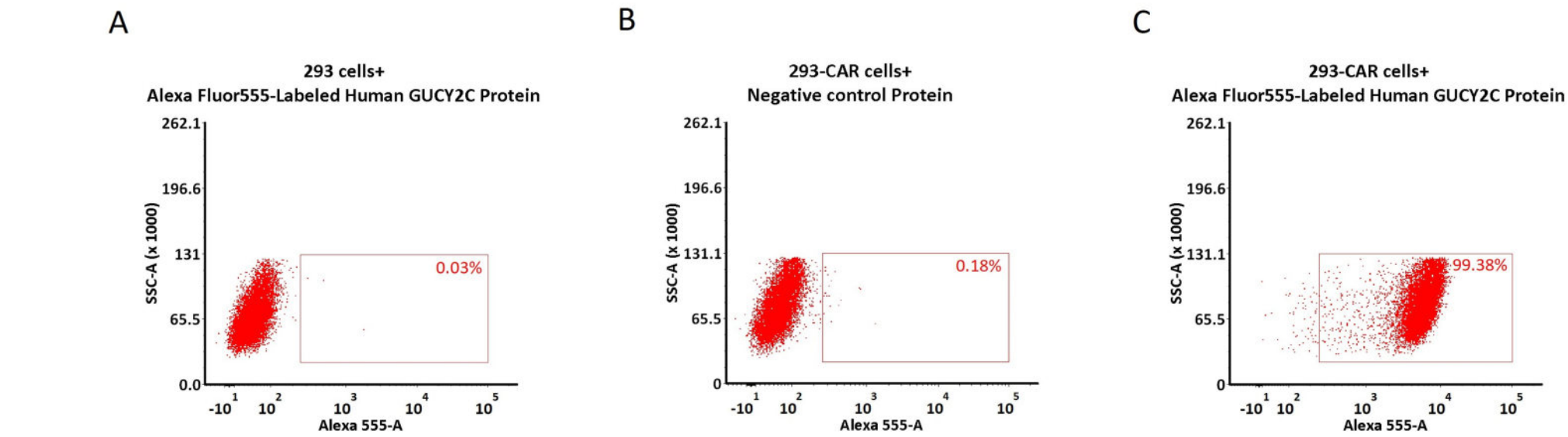
Please protect from light and avoid repeated freeze-thaw cycles.

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.

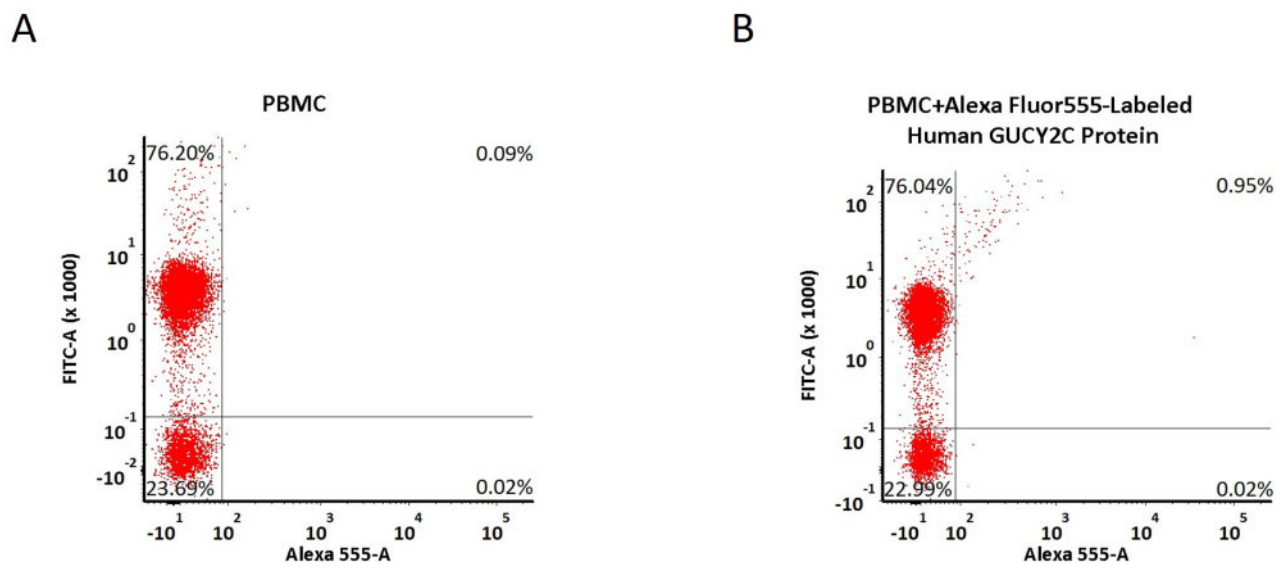
Evaluation of CAR expression

FACS Analysis of Anti-GUCY2C CAR Expression



5e5 of anti-GUCY2C CAR-293 cells were stained with 100 μL of 3 μg/mL of Alexa Fluor 555-Labeled Human GUCY2C Protein, His Tag (Cat. No. GUC-HA2H6) and negative control protein respectively (Fig. C and B), and non-transfected 293 cells were used as a control (Fig. A). Alexa 555 signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs



5e5 of PBMCs were stained with Alexa Fluor 555-Labeled Human GUCY2C Protein, His Tag (Cat. No. GUC-HA2H6) 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 Alexa 555 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 if you have any question on this product.