

Synonym

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

Source

FITC-Labeled Human GUCY2C, His Tag (GUC-HF2H8) is expressed from human 293 cells (HEK293). It contains AA Ser 24 - Gln 430 (Accession # [P25092-1](#)). It is the FITC labeled form of Human GUCY2C, His Tag (GUC-H52H5).

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.

The protein has a calculated MW of 47.9 kDa. The protein migrates as 60-90 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Conjugate

FITC

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

Excitation Wavelength: 488 nm

Emission Wavelength: 535 nm

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular seive treatment during purification process.

FITC:Protein Ratio

The FITC to protein molar ratio is 1-3.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

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.

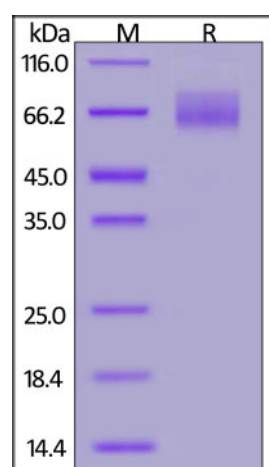
Storage

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:

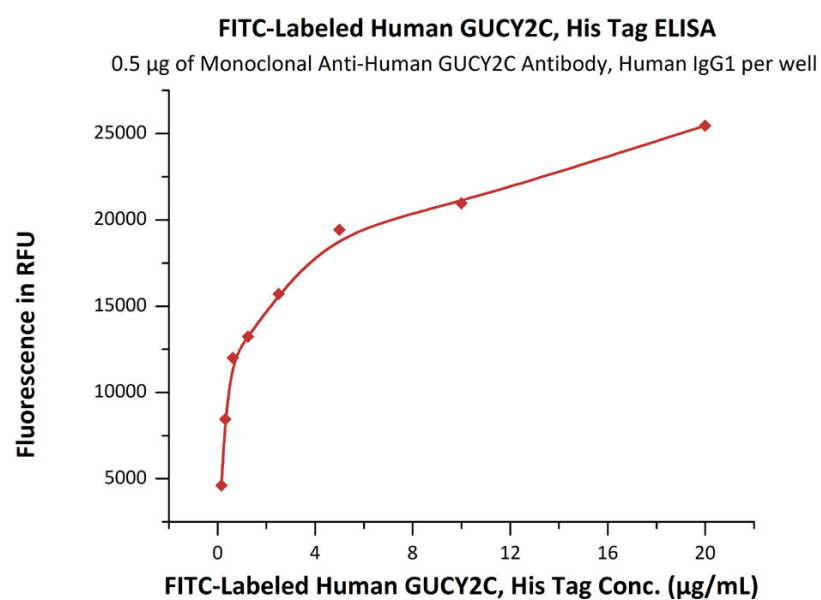
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

FITC-Labeled Human GUCY2C, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of

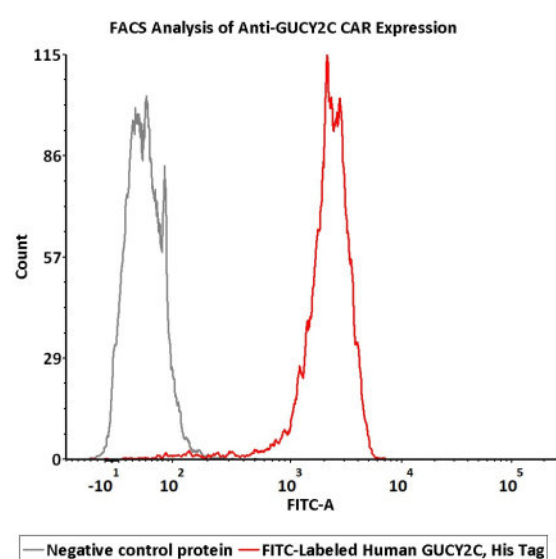
the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Monoclonal Anti-Human GUCY2C Antibody, Human IgG1 at 5 µg/mL (100 µL/well) can bind FITC-Labeled Human GUCY2C, His Tag (Cat. No. [GUC-HF2H8](#)) with a linear range of 0.156-0.625 µg/mL (QC tested).

Bioactivity-FACS



2e5 of anti-GUCY2C CAR-293 cells were stained with 100 µL of 1 µg/mL of FITC-Labeled Human GUCY2C, His Tag (Cat. No. [GUC-HF2H8](#)) and negative control protein respectively. FITC signal was used to evaluate the binding activity (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.

