Human GUCY2C / Guanylyl cyclase C Protein, His Tag

Catalog # GUC-H52H5AI

Application

Human GUCY2C Protein, His Tag AIDD-Ready protein is designed for direct use in SPR assays. It is supplied in a sugar-free, glycerol-free formulation to eliminate refractive index interference in SPR. No desalting or buffer exchange is required before use, simplifying the SPR workflow and supporting high-throughput experimental validation to accelerate the transition from AI prediction to wet-lab validation.

Features and Advantages

- **Directly compatible with SPR:** No desalting or buffer exchange required; supplied as a liquid to reduce sample preparation and improve experimental efficiency.
- **High batch-to-batch consistency:** Each lot is released using SPR QC to ensure experimental reproducibility.
- **Validated with representative drugs:** SPR binding activity is validated using representative drug antibodies to ensure suitability for drug screening and evaluation.

Synonyms

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

Source

Human GUCY2C Protein, His Tag (GUC-H52H5AI) 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 47.9 kDa. The protein migrates as 60-90 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Formulated in a proprietary trehalose-free buffer, supplied ready-to-use for SPR/BLI analysis - no buffer exchange required.

For detailed formulation, please refer to the batch-specific COA.

Shipping and Storage

This product is supplied and shipped on dry ice.

Please avoid repeated freeze-thaw cycles.

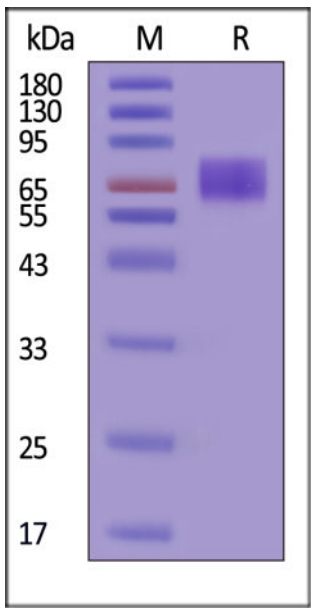
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

ACRO Quality Management System

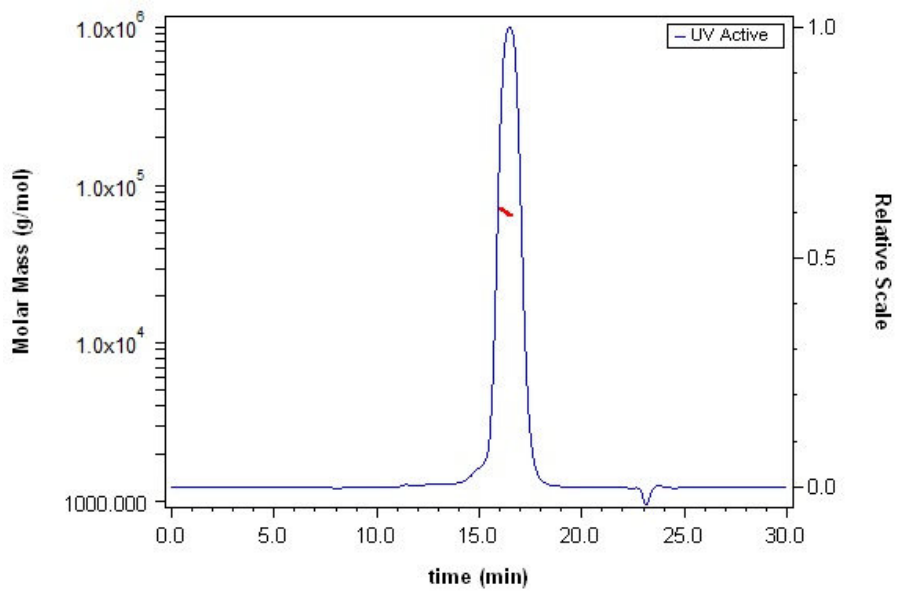
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



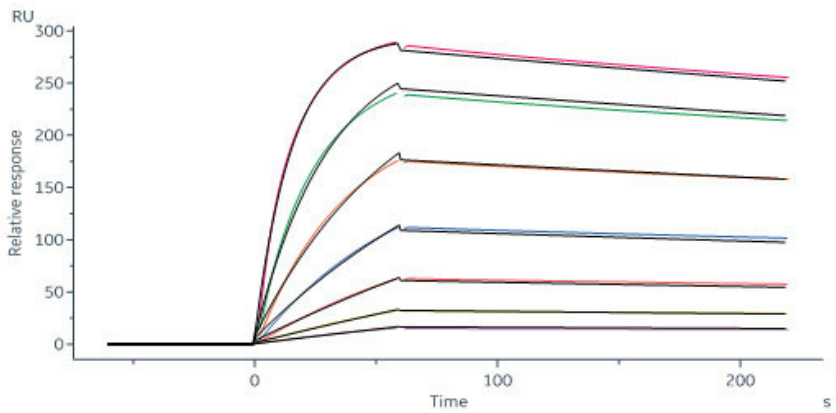
Human GUCY2C Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Human GUCY2C Protein, His Tag (Cat. No. GUC-H52H5AI) is more than 90% and the molecular weight of this protein is around 58-78 kDa verified by SEC-MALS.

Activity-SPR



Monoclonal Anti-GUCY2C Antibody, Human IgG1 captured on Protein A Chip can bind Human GUCY2C Protein, His Tag (Cat. No. GUC-H52H5AI) with an affinity constant of 2.18 nM as determined in a SPR assay (Biacore 8K) (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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