FITC-Labeled Human Glypican 3 / GPC3 Protein, His Tag

Catalog # GP3-HF2H1

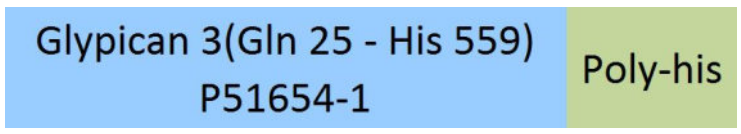
Synonym

GPC3,OCI5,Glypican-3,GTR2-2,MXR7,DGSX,SDYS ,SGB,SGBS,SGBS1

Source

FITC-Labeled Human Glypican 3, His Tag (Cat. No. GP3-HF2H1) is expressed from human HEK293 cells. It contains AA Gln 25 - His 559 (Accession # P51654-1). It is the FITC labeled form of Human Glypican 3, His Tag (Cat. No. GP3-H52H4).
Predicted N-terminus: Gln 25 & Ser 359

Molecular Characterization



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

This protein contains a furin-like convertase cleavage site, 355-RQYR-358, and will be partially processed into N and C-terminal fragment with calculated MW of 38.1 kDa and 24.6 kDa respectively. The protein migrates as 30 kDa, 38-40 kDa, and 65-90 kDa when calibrated against Star Ribbon Pre-stained Protein Marker 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 sieve treatment during purification process.

Protein Ratio

The FITC to protein molar ratio is ***3.5-6.5***.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

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

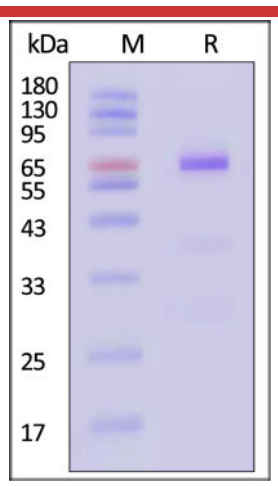
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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

This product is stable after storage at:

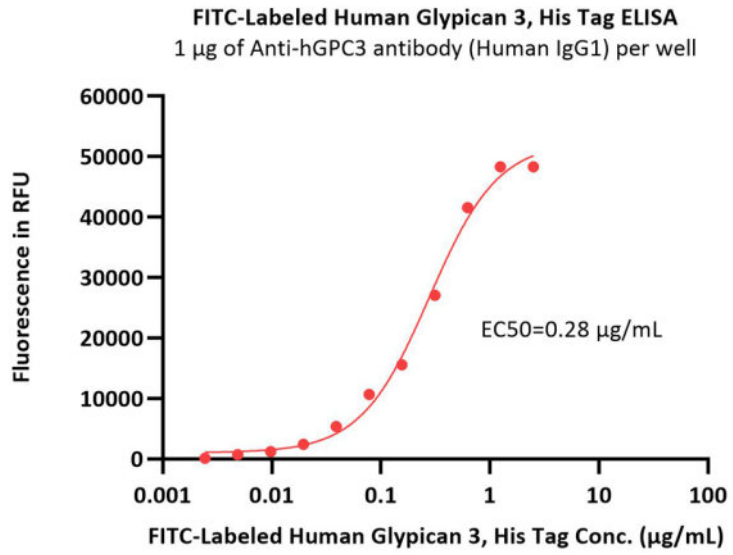
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



FITC-Labeled Human Glypican 3, 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).

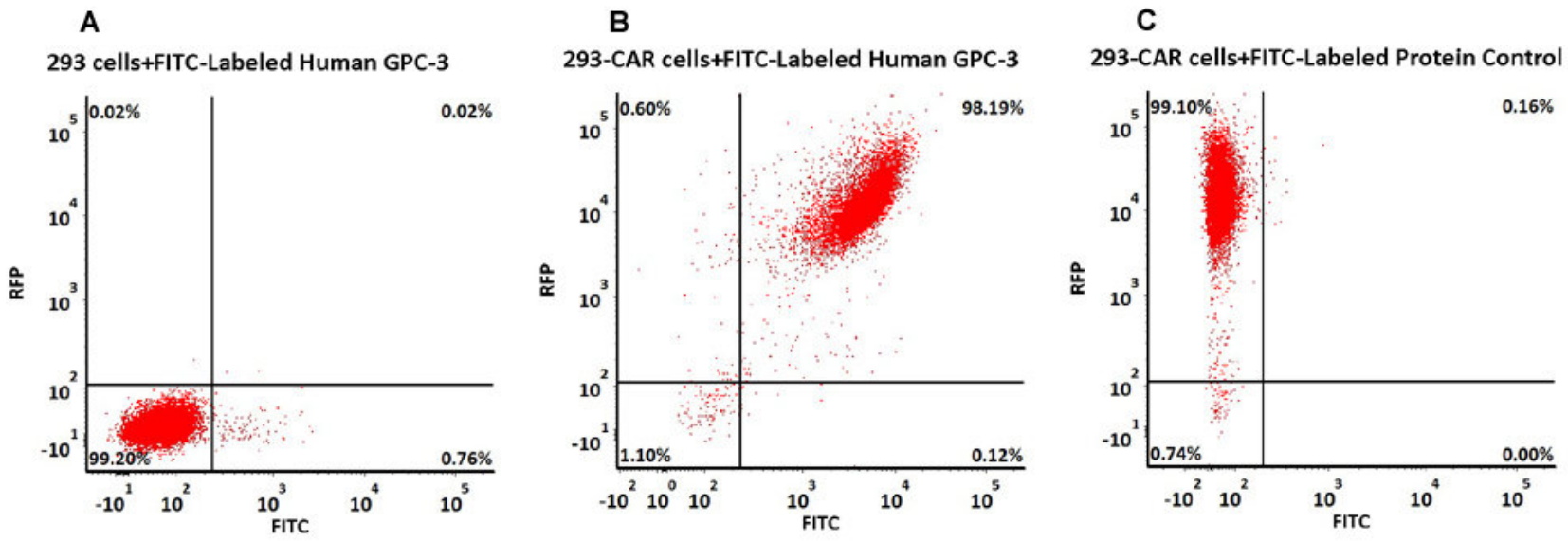
Bioactivity-ELISA



Immobilized Anti-hGPC3 antibody (Human IgG1) at 10 μg/mL (100 μL/well) can bind FITC-Labeled Human Glypican 3, His Tag (Cat. No. GP3-HF2H1) with a linear range of 0.078-0.625 μg/mL (QC tested).

Evaluation of CAR expression

FACS Analysis of anti-GPC3 CAR Expression



293 cells were transfected with anti-GPC3-scFv and RFP tag. 2e5 of the cells were stained with B. FITC-Labeled Human Glypican 3, His Tag (Cat. No. GP3-HF2H1, 3 μg/ml) and C. FITC-labeled Protein Control. A. Non-transfected 293 cells and C. FITC-labeled Protein Control were used as negative control. RFP was used to evaluate CAR (anti-GPC3-scFv) expression and FITC was used to evaluate the binding activity of FITC-Labeled Human Glypican 3, His Tag (Cat. No. GP3-HF2H1) (QC tested).

Background

Glypican-3 (GPC3) is also known as Intestinal protein OCI-5, GTR2-2, MXR7, which belongs to the glypican family. Glypican 3 / GPC-3 is highly expressed in lung, liver and kidney. Glypican-3 inhibits the dipeptidyl peptidase activity of DPP4. Glypican-3 may be involved in the suppression/modulation of growth in the predominantly mesodermal tissues and organs, and also may play a role in the modulation of IGF2 interactions with its receptor and thereby modulate its function.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.