Biotinylated Human GLP1R Full Length Protein, Flag Tag&His,Avitag™ (Detergent)

Catalog # GLR-H82D3

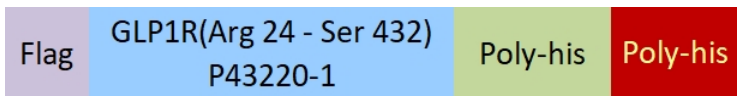
Synonym

GLP-1-R, GLP-1R, glucagon like peptide 1 receptor

Source

Biotinylated Human GLP1R Full Length Protein, Flag Tag&His,Avitag(GLR-H82D3) is expressed from human 293 cells (HEK293). It contains AA Arg 24 - Ser 432 (Accession # P43220-1).
Predicted N-terminus: Asp

Molecular Characterization



This protein carries a Flag tag at the N-terminus and a polyhistidine tag at the C-terminus followed by an Avi tag (Avitag™).

The protein has a calculated MW of 67.9 kDa.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>90% as determined by SDS-PAGE.

Formulation

This product is not suitable for cell based experiments due to cytotoxicity of DDM.
DDM and CHS are INDISPENSABLE to keep membrane protein soluble and active, under no circumstance should you remove DDM and CHS.
DDM/CHS buffer (DC-11) is sold separately and not included in protein, and please contact us if you need the buffer.
If glycerol is not compatible to your application, remove glycerol just before immediate experiment, and NEVER store glycerol-free protein solution.

Supplied as 0.2 μm filtered solution in 50 mM HEPES, 150 mM NaCl, DDM, CHS, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

Storage

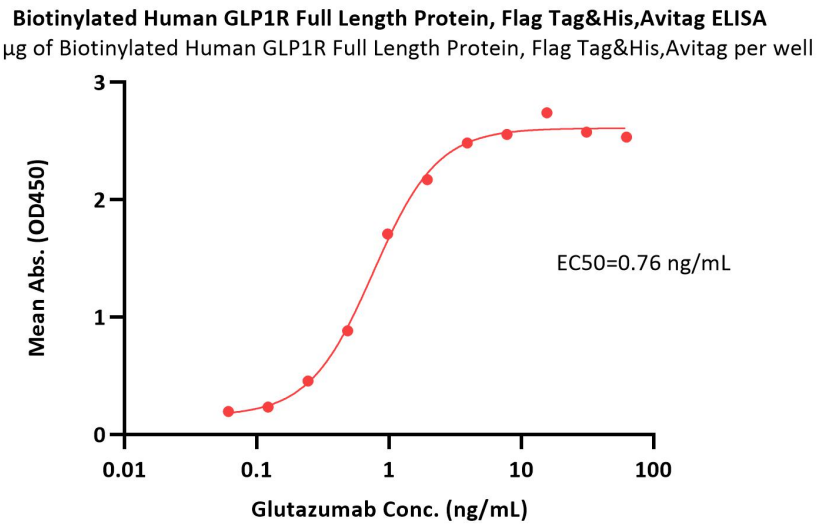
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

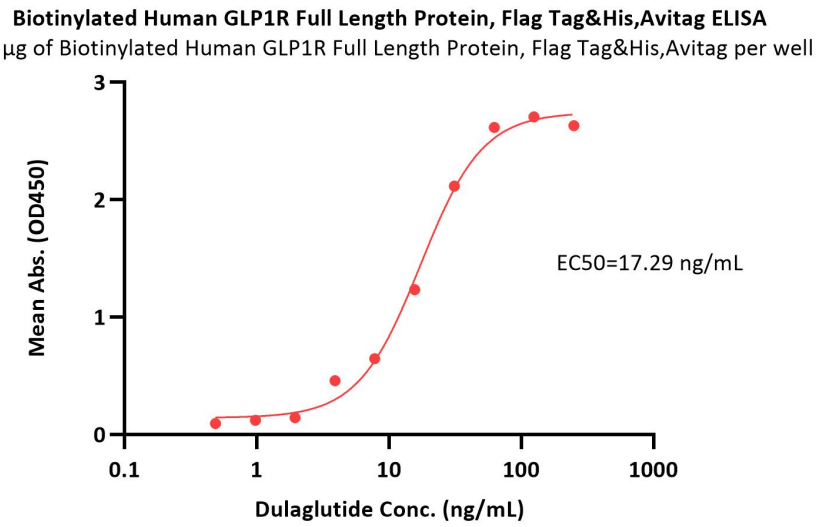
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

*The DDM/CHS buffer (Cat. No. DC-11) is sold separately and not included in protein, you can follow this link for product information.

Bioactivity-ELISA



Immobilized Biotinylated Human GLP1R Full Length Protein, Flag Tag&His,Avitag (Cat. No. GLR-H82D3) at 1 μg/mL (100 μL/well) on

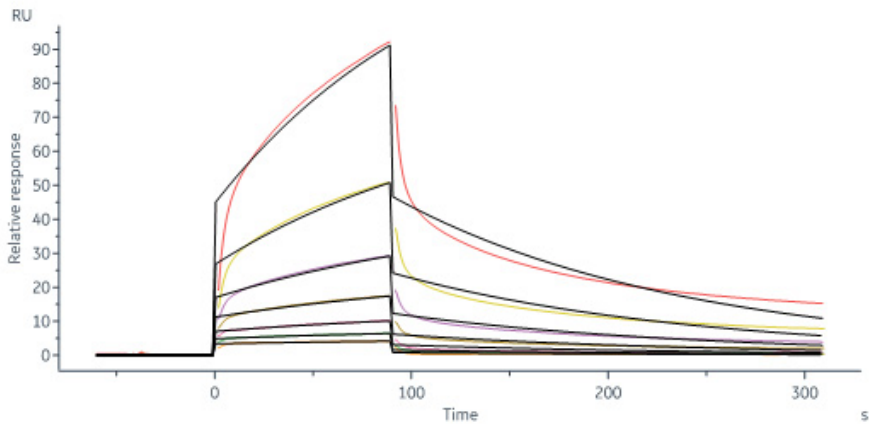


Immobilized Biotinylated Human GLP1R Full Length Protein, Flag Tag&His,Avitag (Cat. No. GLR-H82D3) at 5 μg/mL (100 μL/well) on

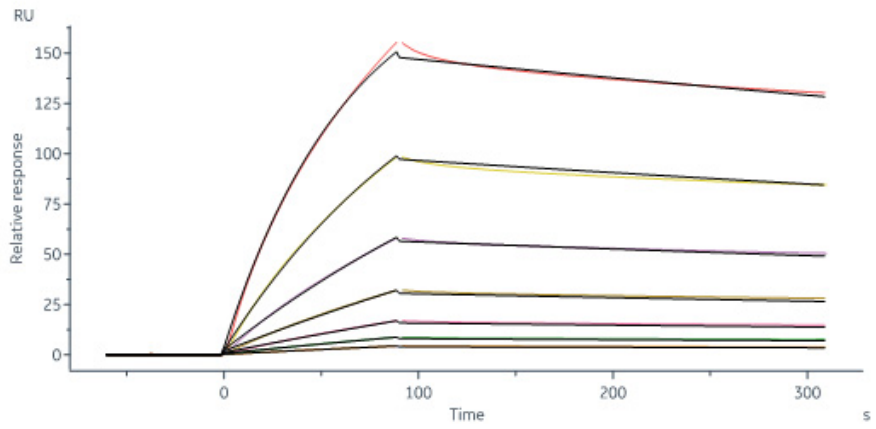
streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Glutazumab with a linear range of 0.06-2 ng/mL (QC tested).

streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Dulaglutide with a linear range of 0.5-31 ng/mL (Routinely tested).

Bioactivity-SPR



Dulaglutide captured on Protein A Chip can bind Biotinylated Human GLP1R Full Length Protein, Flag Tag&His,Avitag (Cat. No. GLR-H82D3) with an affinity constant of 1.91 μM as determined in a SPR assay (in presence of DDM and CHS) (Biacore 8K) (Routinely tested).



Glutazumab captured on Protein A Chip can bind Biotinylated Human GLP1R Full Length Protein, Flag Tag&His,Avitag (Cat. No. GLR-H82D3) with an affinity constant of 30.6 nM as determined in a SPR assay (in presence of DDM and CHS) (Biacore 8K) (Routinely tested).

Background

This gene encodes a 7-transmembrane protein that functions as a receptor for glucagon-like peptide 1 (GLP-1) hormone, which stimulates glucose-induced insulin secretion. This receptor, which functions at the cell surface, becomes internalized in response to GLP-1 and GLP-1 analogs, and it plays an important role in the signaling cascades leading to insulin secretion. It also displays neuroprotective effects in animal models. Polymorphisms in this gene are associated with diabetes. The protein is an important drug target for the treatment of type 2 diabetes and stroke.