

## GLP1R Protein-Nanodisc, Human, Recombinant (Flag &amp; His)

## General Information

Synonyms: GLP-1-R;GLP-1;GLP-1R

A DNA sequence encoding the Human GLP1R (P43220) (Arg24-Phe257) & (Glu262-Lys437) was expressed and linked by a Fusion protein, with polyhistidine tag and Flag tag at the N-terminus. Within the expressed regions, there are several proprietary thermostabilizing mutations. This protein was prepared using our Nanodisc platform.

Protein Construction: Nanodisc is a versatile tool for studying membrane proteins. Using styrene-maleic acid (SMA) copolymer, membrane proteins can be extracted directly from prokaryotic and eukaryotic expression systems in the absence of detergents to preserve the protein structure and function better. Compared to membrane scaffold proteins (MSPs) nanodiscs, SMA nanodiscs also have the advantage of preserving proteins' nature by maintaining native lipids surrounded without introducing any heterologous proteins, which allows studies of protein structure and functions in a native-like environment.

Species: Human

Expression Host: HEK293 Cells

Accession: P43220

Molecular Weight: 58 kDa (predicted)

## QC Testing

Biological Activity: 1. Immobilized GLP1R Protein-Nanodisc, Human, Recombinant (Flag & His) (Cat#TMPY-07122) at 5 µg/mL (100 µL/well) can bind Anti-GLP1R Monoclonal Antibody, Human IgG1, the EC50 is 2-8 ng/mL.

2. Loaded GLP1R Protein-Nanodisc, Human, Recombinant (Flag & His) (Cat#TMPY-07122) on HIS1K Biosensor, can bind Dulaglutide-hIgG4 with an affinity constant of 5.91 µM as determined in BLI assay (Sartorius Octet RED384) (QC tested).

Purity: ≥ 90% as determined by SDS-PAGE.

Endotoxin: < 1.0 EU/µg of the protein as determined by the LAL method.

Formulation: Supplied as sterile 50 mM HEPES, 150 mM NaCl, pH 7.5. Please contact us for any concerns or special requirements. Please refer to the specific buffer information in the hardcopy of datasheet or the lot-specific COA.

## Preparation and Storage

## Stability &amp; Storage:

Samples are stable for up to twelve months from date of receipt at -70°C. Store it under sterile conditions at -70°C or lower. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Actual storage temperature shall be subject to the COA.

### Shipping:

Proteins are shipped with blue ice.

### Protein Background

Glucagon-like peptide (GLP)-1 receptor is encoded by GLP1R. GLP1R plays a critical role in mediating the biological actions of GLP1 in mammals and fish. The neuronal GLP1Rs mediate body weight and anorectic effects of liraglutide, but are not required for glucose-lowering effects. Glucagon-like peptide 1 receptor (GLP1R) signaling has been shown to have antipsychotic properties in animal models and to impact glucose-dependent insulin release, satiety, memory, and learning in man. Glucagon-like peptide-1 receptor (GLP1R) and glucose-dependent insulinotropic peptide receptor (GIPR) are their indirect drug targets.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481