Cat. No. FLP100031A



PRODUCT INFORMATION

Tag C-Flag Tag

Target GPR75

Synonyms GPRchr2; WI31133

DescriptionHuman β2AR-GPR75-BRIL full length protein-

synthetic nanodisc

Delivery In Stock
Uniprot ID 095800
Expression Host HEK293

Protein Families Druggable Genome, GPCR, Transmembrane

Protein Pathways N/A

Formulation & Reconstitution

Storage & Shipping

Background

Molecular Weight

The human full length β2AR-GPR75-BRIL protein

has a MW of 59.4 kDa Lyophilized from nanodisc solubilization buffer (20

mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions. Do not use solvents with

for specific instructions. Do not use solvents with a pH below 6.5 or those containing high concentrations of divalent metal ions (greater than 5 mM) in subsequent experiments. Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not

intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing).

Lyophilized proteins are shipped at ambient

témperature.

GPR75 is a member of the G protein-coupled receptor family and is a novel target for the clinical treatment of obesity. Human GPR75 haploinsufficiency exhibits a striking phenotype of low body fat, and GPR75 knockout mice are hypophagic and thin, improving glucose tolerance and insulin sensitivity. To enhance the expression level of GPR75, twenty-four amino acids from the β2AR receptor (MGQPGNGSAFLLAPNRSHAPDHDV)

β2AR receptor (MGQPGNGSAFLLAPNRSHAPDHDV) were used to replace the original residues1-31 in a modified version of the GPR75 receptor. Furthermore, the BRIL sequence was used to replace the original ICL3 loop (237-306) to

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enhance receptor stability. BRIL is

thermostabilized apocytochrome b562 with mutations M7W, H102I, R106L, PDB ID 1M6T.

Usage Research use only
Conjugate Unconjugated





ELISA assay to evaluate β2AR-GPR75-BRIL-Nanodisc 0.2μg Human β2AR-GPR75-BRIL-Nanodisc per well

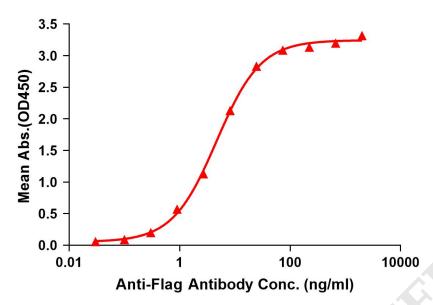


Figure 1. Elisa plates were pre-coated with Flag Tag β 2AR-GPR75-BRIL-Nanodisc (0.2µg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with β 2AR-GPR75-BRIL-Nanodisc is 4.678ng/ml.

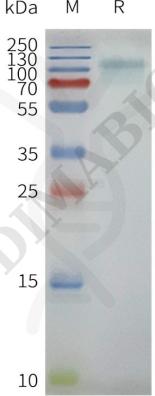


Figure 2. Human β2AR-GPR75-BRIL-Nanodisc, Flag Tag on SDS-PAGE



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