

PRODUCT INFORMATION

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| Tag | C-Flag Tag |
| Target | GPR75 |
| Synonyms | GPRchr2; WI31133 |
| Description | Human β 2AR-GPR75-BRIL full length protein-synthetic nanodisc |
| Delivery | In Stock |
| Uniprot ID | O95800 |
| Expression Host | HEK293 |
| Protein Families | Druggable Genome, GPCR, Transmembrane |
| Protein Pathways | N/A |
| Molecular Weight | The human full length β 2AR-GPR75-BRIL protein has a MW of 59.4 kDa |
| Formulation & Reconstitution | 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 |
| Storage & Shipping | 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 temperature. |
| Background | 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 β 2AR 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 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 β 2AR-GPR75-BRIL-Nanodisc
0.2 μ g Human β 2AR-GPR75-BRIL-Nanodisc per well

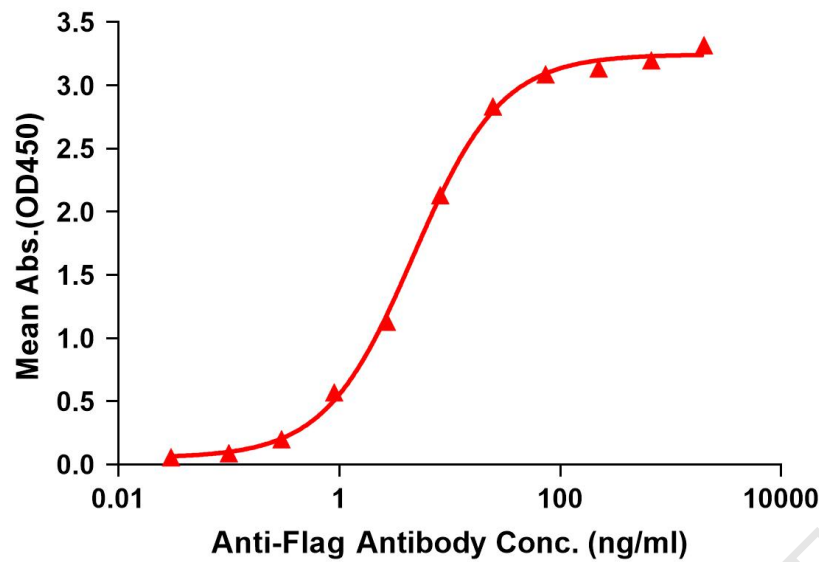


Figure 1. Elisa plates were pre-coated with Flag Tag β 2AR-GPR75-BRIL-Nanodisc (0.2 μ g/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding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



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

