

## beta2AR-GPR75-BRIL Protein | GPR75 protein

Human beta2AR-GPR75-BRIL full length protein-synthetic nanodisc

CATALOG #  
**AAA129473**

HOST  
**HEK293**

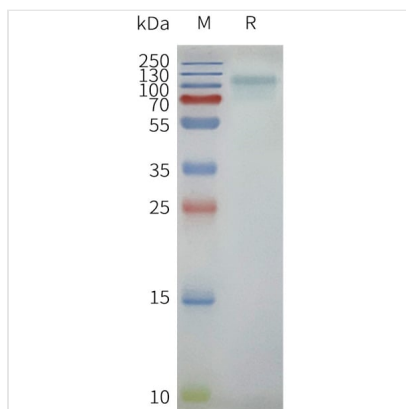
### PRODUCT SYNONYMS

beta2AR-GPR75-BRIL; Human beta2AR-GPR75-BRIL full length protein-synthetic nanodisc; GPRchr2; WI31133; GPR75 protein

### PRODUCT SPECIFICATIONS

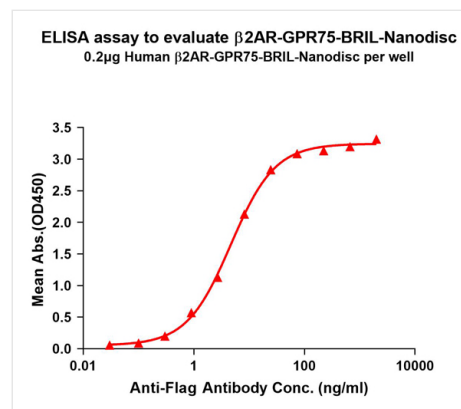
|                         |                                                                                                                                                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | HEK293                                                                                                                                                                                                                                                                   |
| Form/Format             | 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. Lyophilized from PBS. Normally 5%-          |
| Tag                     | C-DYKDDDDK                                                                                                                                                                                                                                                               |
| Preparation and Storage | Store at -20 degree C to -80 degree C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80 degree C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature. |

### IMAGES



**SDS-PAGE**

Figure 2. Human  $\beta$ 2AR-GPR75-BRIL-Nanodisc, DYKDDDDK Tag on SDS-PAGE



**ELISA**

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

### ADDITIONAL INFORMATION

#### Related Product Information for GPR75 protein

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 beta2AR receptor (MGQPGNGSAFLAPNRSHAPDHDV) 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.

Product Categories/Family for GPR75 protein

[Full Length Transmembrane Proteins](#); [Druggable Genome](#); [GPCR](#); [Transmembrane](#)

## NCBI AND UNIPROT INFORMATION

|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| NCBI GI #                        | <a href="#">5803025</a>                                                  |
| NCBI GeneID                      | <a href="#">10936</a>                                                    |
| NCBI Accession #                 | <a href="#">NP_006785.1</a>                                              |
| NCBI GenBank Nucleotide #        | <a href="#">NM_006794.3</a>                                              |
| UniProt Accession #              | <a href="#">O95800</a> ; <a href="#">Q6NWR2</a> ; <a href="#">B2RC02</a> |
| Molecular Weight                 | 59,359 Da                                                                |
| NCBI Official Full Name          | probable G-protein coupled receptor 75                                   |
| NCBI Official Synonym Full Names | G protein-coupled receptor 75                                            |
| NCBI Official Symbol             | GPR75                                                                    |
| NCBI Official Synonym Symbols    | GPRchr2; WI31133                                                         |
| NCBI Protein Information         | probable G-protein coupled receptor 75                                   |
| UniProt Protein Name             | Probable G-protein coupled receptor 75                                   |
| UniProt Gene Name                | <b>GPR75</b>                                                             |
| UniProt Entry Name               | GPR75_HUMAN                                                              |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://stage.aaabiotech.com/hek293-protein/beta2ar-gpr75-bril/129473>