

## PRODUCT INFORMATION

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| <b>Target</b>                           | GPR20  |
| <b>Synonyms</b>                         | G-protein coupled receptor 20  |
| <b>Description</b>                      | Human GPR20 full length protein-synthetic nanodisc   |
| <b>Delivery</b>                         | In Stock   |
| <b>Uniprot ID</b>                       | Q99678   |
| <b>Expression Host</b>                  | HEK293   |
| <b>Protein Families</b>                 | Druggable Genome, GPCR, Transmembrane  |
| <b>Protein Pathways</b>                 | N/A  |
| <b>Molecular Weight</b>                 | The human full length GPR20 protein has a MW of 38.7 kDa   |
| <b>Formulation &amp; Reconstitution</b> | 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 pH lower than 6.5 in subsequent experiments.   |
| <b>Storage &amp; Shipping</b>           | 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.  |
| <b>Background</b>                       | GPR20 is one of the orphan GPCRs that has been identified from human genomic DNA by PCR amplification using primers based on the sequences of the opioid/somatostatin-related receptors, GPR7 and GPR8. The expression of human GPR20 has been detected in several brain regions, including the caudate nuclei, putamen, and the thalamus. A recently disclosed patent demonstrated that GPR20-deficient mice exhibited a hyperactivity disorder characterized by an increase in total distance traveled in an open field test, implying a substantial role of GPR20 in neurophysiological function. However, the physiological mechanisms of GPR20 action, including the identification of natural ligands for GPR20, have not yet been elucidated. |
| <b>Usage</b>                            | Research use only  |



### ELISA assay to evaluate GPR20-Nanodisc 0.2 $\mu$ g Human GPR20-Nanodisc per well

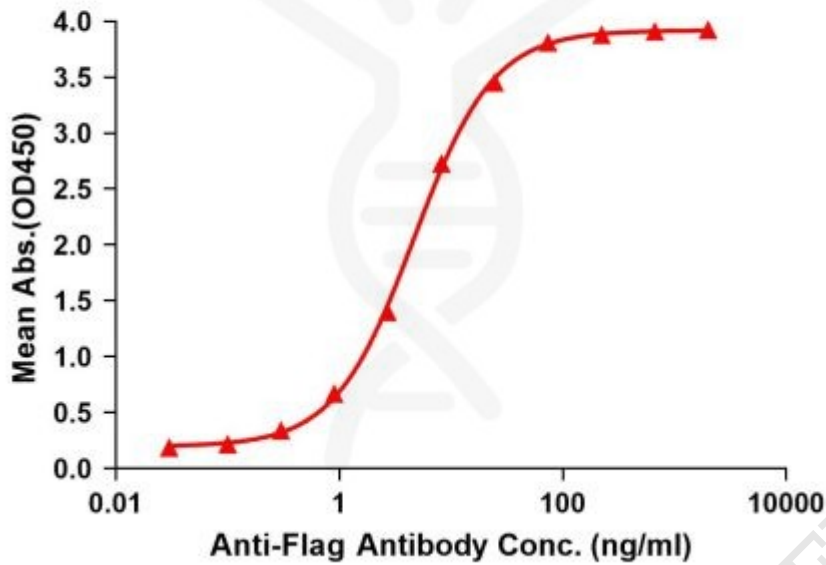


Figure1. Elisa plates were pre-coated with Flag Tag GPR20-Nanodisc (0.2 $\mu$ g/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with GPR20-Nanodisc is 4.663ng/ml.



Figure2. Human GPR20-Nanodisc, Flag Tag on SDS-PAGE

