

**PRODUCT INFORMATION**

<b>Tag</b>	C-Flag Tag
<b>Expression Host</b>	HEK293
<b>Target</b>	GPR20
<b>Synonyms</b>	G-protein coupled receptor 20
<b>Description</b>	Human GPR20 full length protein-synthetic nanodisc
<b>Uniprot ID</b>	Q99678
<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>Delivery</b>	In Stock
<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 a pH below 6.5 or those containing high concentrations of divalent metal ions (greater than 5 mM) in subsequent experiments.
<b>Sterility</b>	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 µm) prior to use.
<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
<b>Conjugate</b>	Unconjugated



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

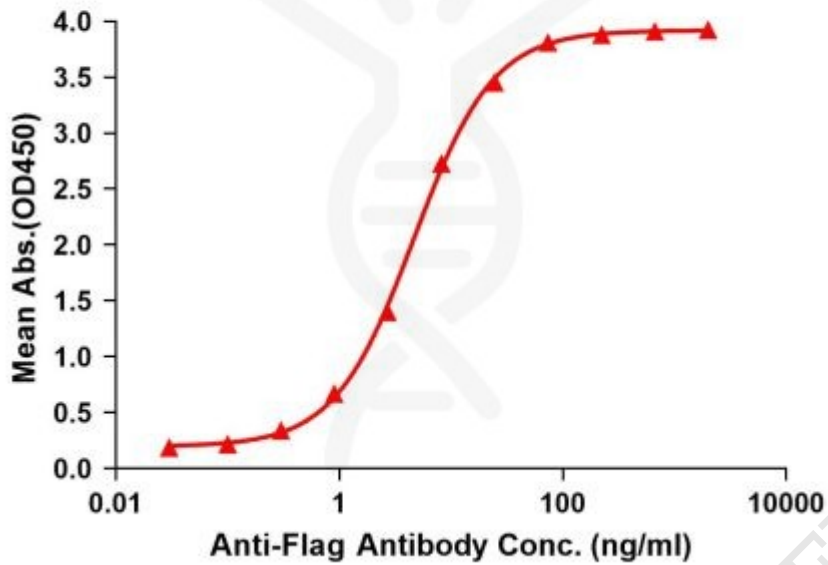


Figure1. Elisa plates were pre-coated with Flag Tag GPR20-Nanodisc (0.2 $\mu$ g/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with GPR20-Nanodisc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



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

