



Datasheet for ABIN7491661

## GPR20 Protein



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### 2 Images

#### Overview

Quantity:	100 µg
Target:	GPR20
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Synthetic Nanodisc

#### Product Details

Purpose:	Human GPR20 full length protein-synthetic nanodisc
Characteristics:	Unlike other membrane scaffold protein (MSP) Nanodisc on the market, our synthetic Nanodisc can be prepared directly from the cells. The polymers used during this process have a dual function. It dissolves the cell membranes, like the detergent, and uses cellular phospholipids to form Nanodisc around the membrane proteins. The target protein embedded Nanodiscs can then be purified.

#### Target Details

Target:	GPR20
Alternative Name:	GPR20 ( <a href="#">GPR20 Products</a> )
Background:	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

## Target Details

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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.

Molecular Weight: The human full length GPR20 protein has a MW of 38.7 kDa

UniProt: [Q99678](#)

## Application Details

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Comment: Advantages of Synthetic Nanodiscs:

- Highly purified membrane proteins
- High solubility in aqueous solutions
- High stability
- Proteins are in a native membrane environment and remain biologically active
- No detergent and can be used for cell-based assays
- No MSP backbone proteins

Limitations of Synthetic Nanodiscs:

- Intolerant to acids and high concentrations of divalent metal ions

Restrictions: For Research Use only

## Handling

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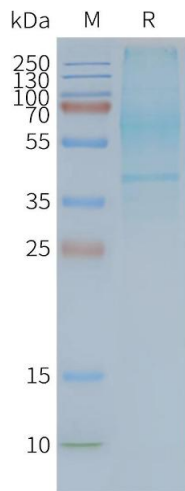
Format: Lyophilized

Buffer: 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.

Storage: -20 °C,-80 °C

Storage Comment: 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.

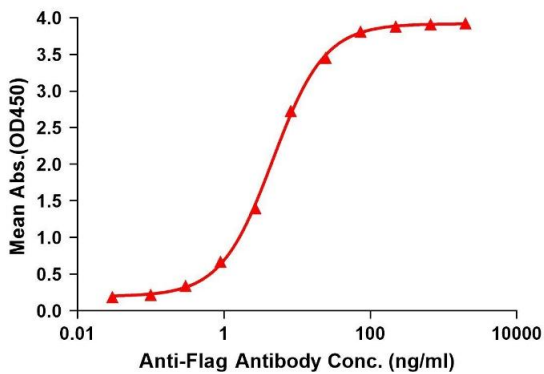
Expiry Date: 12 months



### SDS-PAGE

**Image 1.** Human -Nanodisc, Flag Tag on SDS-PAGE

**ELISA assay to evaluate GPR20-Nanodisc**  
0.2µg Human GPR20-Nanodisc per well



### ELISA

**Image 2.** Elisa plates were pre-coated with Flag Tag - Nanodisc (0.2 µg/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 -Nanodisc is 4.663 ng/mL.