Datasheet for ABIN7491653

GLP1R Protein

2 Images

Go to Product page

Overview

Quantity:	100 µg
Target:	GLP1R
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Synthetic Nanodisc

Product Details

Purpose:	Human GLP1R 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:	GLP1R
Alternative Name:	GLP1R (GLP1R Products)
Background:	A 7-transmembrane protein that functions as a receptor for glucagon-like peptide 1 (GLP-1) hormone, which stimulates glucose-induced insulin secretion. This receptor, which functions at the cell surface, becomes internalized in response to GLP-1 and GLP-1 analogs, and it plays an important role in the signaling cascades leading to insulin secretion. It also displays neuroprotective effects in animal models. Polymorphisms in this gene are associated with

Target Details

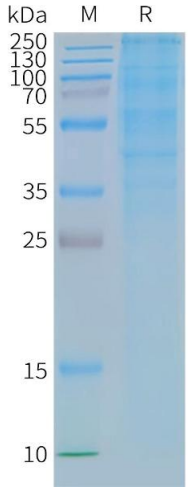
	diabetes. The protein is an important drug target for the treatment of type 2 diabetes and stroke. Alternative splicing of this gene results in multiple transcript variants.
Molecular Weight:	The human full length GLP1R protein has a MW of 53.0 kDa
UniProt:	P43220
Pathways:	Positive Regulation of Peptide Hormone Secretion, Hormone Transport, cAMP Metabolic Process, Feeding Behaviour

Application Details

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

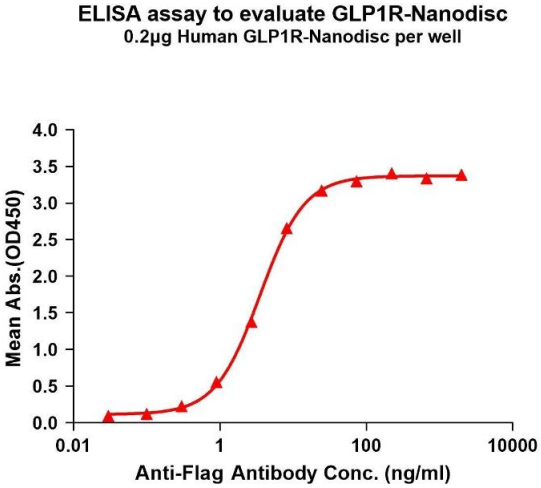
Handling

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 R-Nanodisc, Flag Tag on SDS-PAGE



ELISA

Image 2. Elisa plates were pre-coated with Flag Tag R-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 R-Nanodisc is 3.549 ng/mL.