

**PRODUCT INFORMATION**

<b>Tag</b>	C-Flag&Strep Tag
<b>Target</b>	HCAR2
<b>Synonyms</b>	GPR109A; HCA2; HM74a; HM74b; NIACR1; Puma-g; PUMAG
<b>Description</b>	Human HCAR2-Strep full length protein-synthetic nanodisc
<b>Delivery</b>	In Stock
<b>Uniprot ID</b>	Q8TDS4
<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 HCAR2-Strep protein has a MW of 41.9 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 a pH below 6.5 or those containing high concentrations of divalent metal ions (greater than 5 mM) 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>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>Background</b>	Acts as a high affinity receptor for both nicotinic acid (also known as niacin) and (D)-beta-hydroxybutyrate and mediates increased adiponectin secretion and decreased lipolysis through G(i)-protein-mediated inhibition of adenylyl cyclase. This pharmacological effect requires nicotinic acid doses that are much higher than those provided by a normal diet. Mediates nicotinic acid-induced apoptosis in mature neutrophils. Receptor activation by nicotinic acid results in reduced cAMP levels which may affect activity of cAMP-dependent protein kinase A and phosphorylation of target proteins, leading to neutrophil apoptosis. The rank order of potency for the displacement of nicotinic acid binding is 5-methyl pyrazole-3-carboxylic acid = pyridine-3-acetic acid > acifran > 5-methyl nicotinic acid = acipimox >> nicotinuric acid = nicotinamide.
<b>Usage</b>	Research use only
<b>Conjugate</b>	Unconjugated



### ELISA assay to evaluate HCAR2-Strep-Nanodisc 0.2µg Human HCAR2-Strep-Nanodisc per well

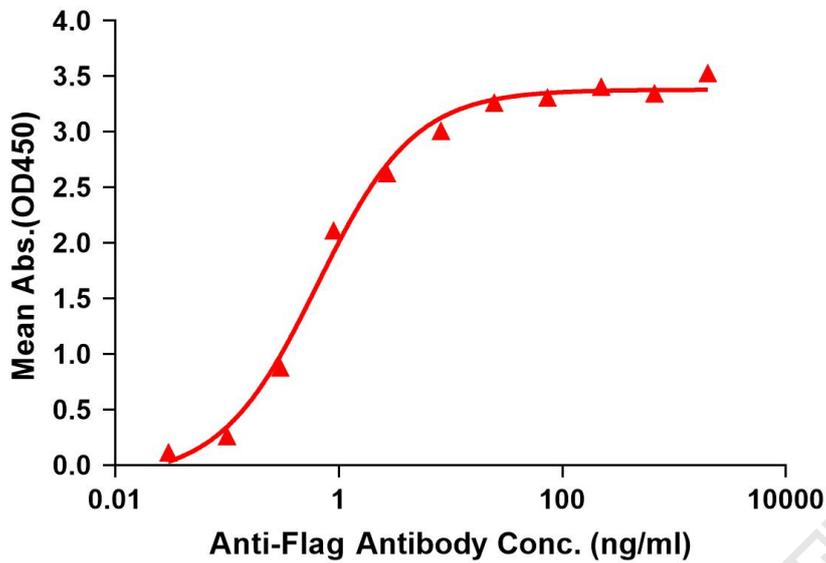


Figure 1. Elisa plates were pre-coated with C-Flag&Strep Tag HCAR2-Strep-Nanodisc (0.2µg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with HCAR2-Strep-nanodisc is 0.649ng/ml.

kDa M R

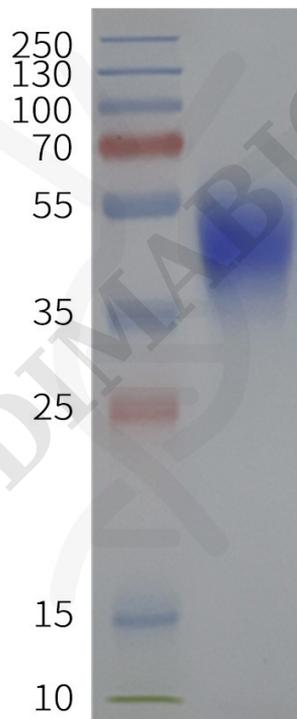


Figure 2. Human HCAR2-Strep-Nanodisc, C-Flag&Strep Tag on SDS-PAGE

