PRODUCT INFORMATION

Tag	C-Flag&Strep Tag
Expression Host	HEK293
Target	GPER1
Synonyms	CEPR; CMKRL2; DRY12; FEG-1; GPCR-Br; GPER; GPR30; LERGU; LERGU2; LyGPR; mER
Description	Human GPER1-Strep full length protein-synthetic nanodisc
Uniprot ID	Q99527
Protein Families	Druggable Genome, GPCR, Transmembrane
Protein Pathways	N/A
Molecular Weight	The human full length GPER1-Strep protein has a MW of 42.2 kDa
Delivery	In Stock
Formulation & Reconstitution	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.
Sterility	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 µm) prior to use.
Storage&Shipping	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.
Background	A multi-pass membrane protein that localizes to the endoplasmic reticulum and a member of the G-protein coupled receptor 1 family. This receptor binds estrogen and activates multiple downstream signaling pathways, leading to stimulation of adenylate cyclase and an increase in cyclic AMP levels, while also promoting intracellular calcium mobilization and synthesis of phosphatidylinositol 3,4,5-trisphosphate in the nucleus. This protein therefore plays a role in the rapid nongenomic signaling events widely observed following stimulation of cells and tissues with estrogen. This receptor has been shown to play a role in diverse biological processes, including bone and nervous system development, metabolism, cognition, male fertility and uterine function.
Usage	Research use only
Conjugate	Unconjugated

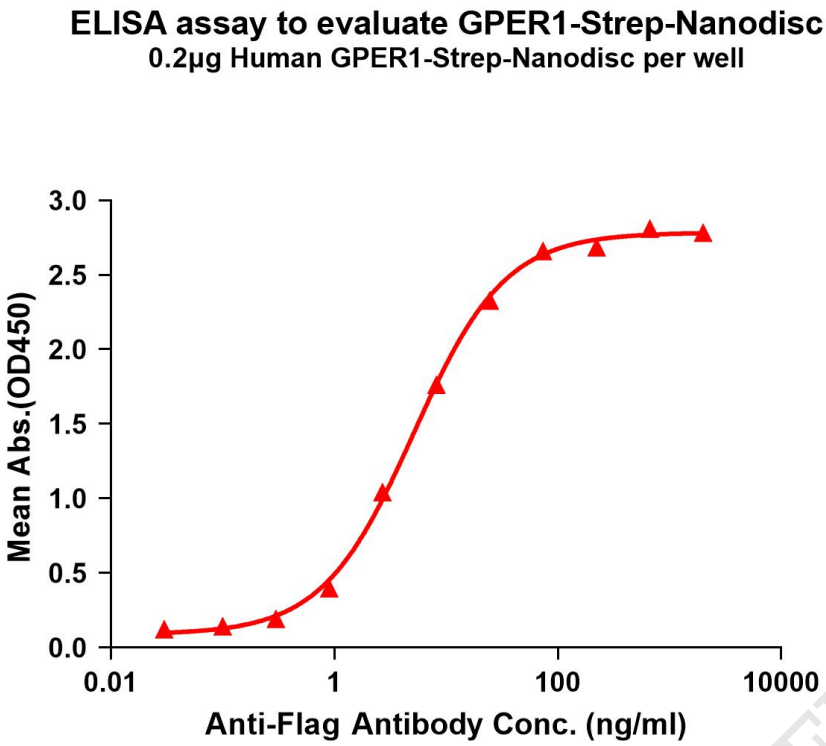

Figure 1. Elisa plates were pre-coated with C-Flag&Strep Tag GPER1-Strep-Nanodisc (0.2μg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with GPER1-Strep-nanodisc is 5.129ng/ml.

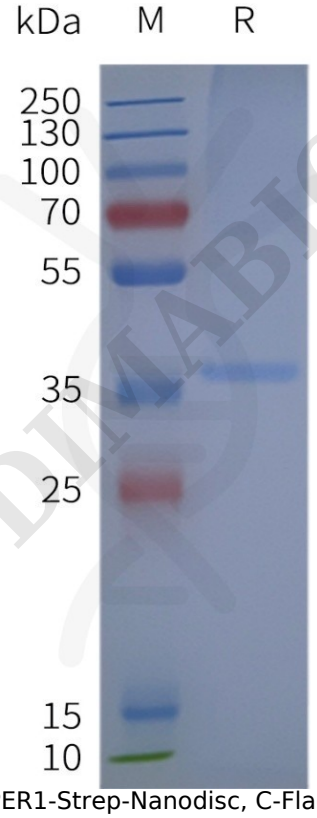

Figure 2. Human GPER1-Strep-Nanodisc, C-Flag&Strep Tag on SDS-PAGE