

PRODUCT INFORMATION

Tag	C-Flag Tag
Expression Host	HEK293
Target	APLNR
Synonyms	AGTRL1; APJ; APJR; HG11
Description	Human APLNR full length protein-synthetic nanodisc
Uniprot ID	P35414
Protein Families	Druggable Genome, GPCR, Transmembrane
Protein Pathways	Neuroactive ligand-receptor interaction
Molecular Weight	The human full length APLNR protein has a MW of 42.7 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 member of the G protein-coupled receptor gene family. The encoded protein is related to the angiotensin receptor, but is actually an apelin receptor that inhibits adenylate cyclase activity and plays a counter-regulatory role against the pressure action of angiotensin II by exerting hypertensive effect. It functions in the cardiovascular and central nervous systems, in glucose metabolism, in embryonic and tumor angiogenesis and as a human immunodeficiency virus (HIV-1) coreceptor. Two transcript variants resulting from alternative splicing have been identified.
Usage	Research use only
Conjugate	Unconjugated



ELISA assay to evaluate APLNR-Nanodisc 0.2 μ g Human APLNR-Nanodisc per well

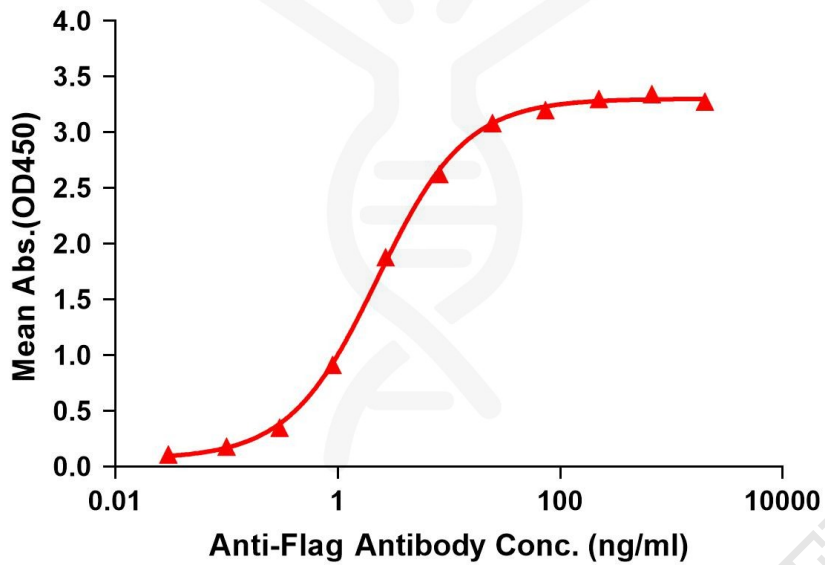


Figure 1. Elisa plates were pre-coated with Flag Tag APLNR-Nanodisc (0.2 μ g/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with APLNR-Nanodisc is 2.278ng/ml.



Figure 2. Human APLNR-Nanodisc, Flag Tag on SDS-PAGE



SPR assay to evaluate APLNR-Nanodisc

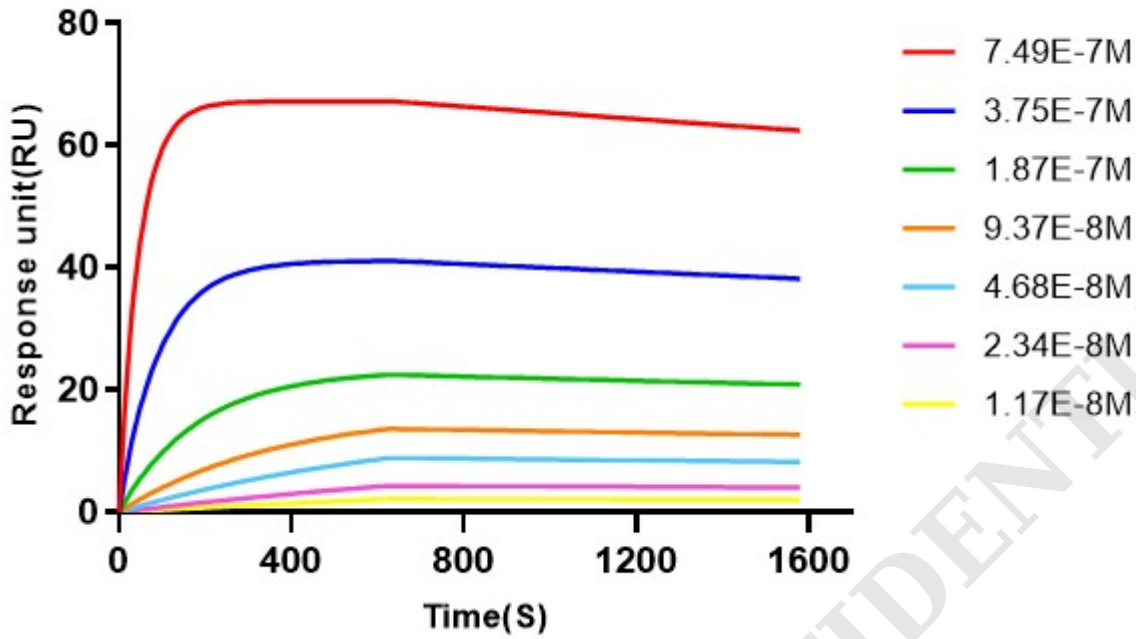


Figure 3. Loaded Human APLN Protein, hFc Tag (PME101355) on Pro-A Biosensor, can bind Human APLNR full length protein-synthetic nanodisc (FLP100132) with an affinity constant of 2.77 nM as determined in SPR assay.

