

PRODUCT INFORMATION

Tag	C-Flag Tag
Expression Host	HEK293
Target	NPC1L1
Synonyms	LDLCQ7; NPC11L1; SLC65A2
Description	Human NPC1L1 full length protein-synthetic nanodisc
Uniprot ID	Q9UHC9
Protein Families	Druggable Genome, Transmembrane
Protein Pathways	N/A
Molecular Weight	The human full length NPC1L1 protein has a MW of 148.7 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	The protein is a multi-pass membrane protein. It contains a conserved N-terminal Niemann-Pick C1 (NPC1) domain and a putative sterol-sensing domain (SSD) which includes a YQRL motif functioning as a plasma membrane to trans-Golgi network transport signal in other proteins. This protein takes up free cholesterol into cells through vesicular endocytosis and plays a critical role in the absorption of intestinal cholesterol. It also has the ability to transport alpha-tocopherol (vitamin E). The drug ezetimibe targets this protein and inhibits the absorption of intestinal cholesterol and alpha-tocopherol. In addition, this protein may play a critical role in regulating lipid metabolism. Polymorphic variations in this gene are associated with plasma total cholesterol and low-density lipoprotein cholesterol (LDL-C) levels and coronary heart disease (CHD) risk.
Usage	Research use only
Conjugate	Unconjugated



ELISA assay to evaluate NPC1L1-Nanodisc 0.2 μ g Human NPC1L1-Nanodisc per well

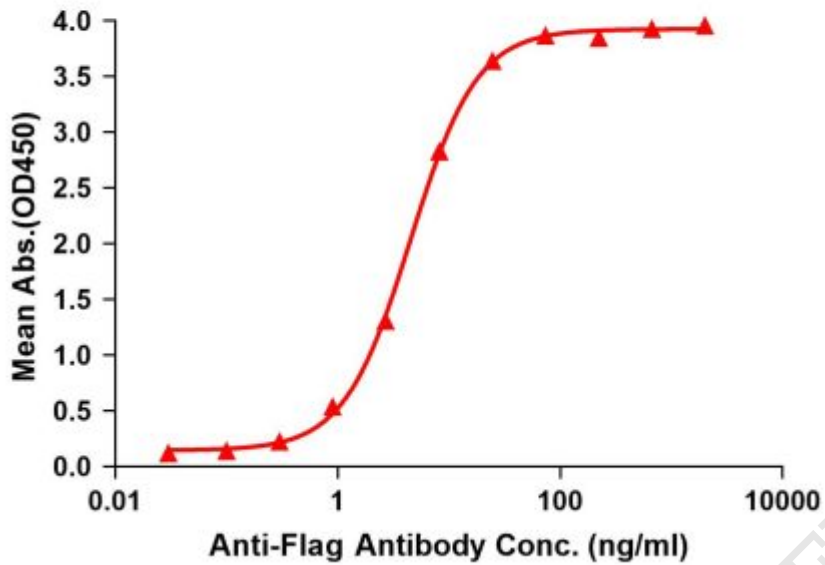


Figure1. Elisa plates were pre-coated with Flag Tag NPC1L1-Nanodisc (0.2 μ g/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with NPC1L1-Nanodisc is 4.526ng/ml.



Figure2. Human NPC1L1-Nanodisc, Flag Tag on SDS-PAGE

