

## PRODUCT INFORMATION

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| <b>Tag</b>                              | C-Flag Tag   |
| <b>Target</b>                           | NPC1L1   |
| <b>Synonyms</b>                         | LDLCQ7; NPC11L1; SLC65A2   |
| <b>Description</b>                      | Human NPC1L1 full length protein-synthetic nanodisc  |
| <b>Delivery</b>                         | In Stock   |
| <b>Uniprot ID</b>                       | Q9UHC9   |
| <b>Expression Host</b>                  | HEK293   |
| <b>Protein Families</b>                 | Druggable Genome, Transmembrane  |
| <b>Protein Pathways</b>                 | N/A  |
| <b>Molecular Weight</b>                 | The human full length NPC1L1 protein has a MW of 148.7 kDa   |
| <b>Background</b>                       | <p>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.</p> |
| <b>Formulation &amp; Reconstitution</b> | <p>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.</p>  |
| <b>Storage &amp; Shipping</b>           | <p>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.</p>   |
| <b>Usage</b>                            | Research use only  |
| <b>Conjugate</b>                        | Unconjugated   |



### ELISA assay to evaluate NPC1L1-Nanodisc 0.2 $\mu$ g Human NPC1L1-Nanodisc per well

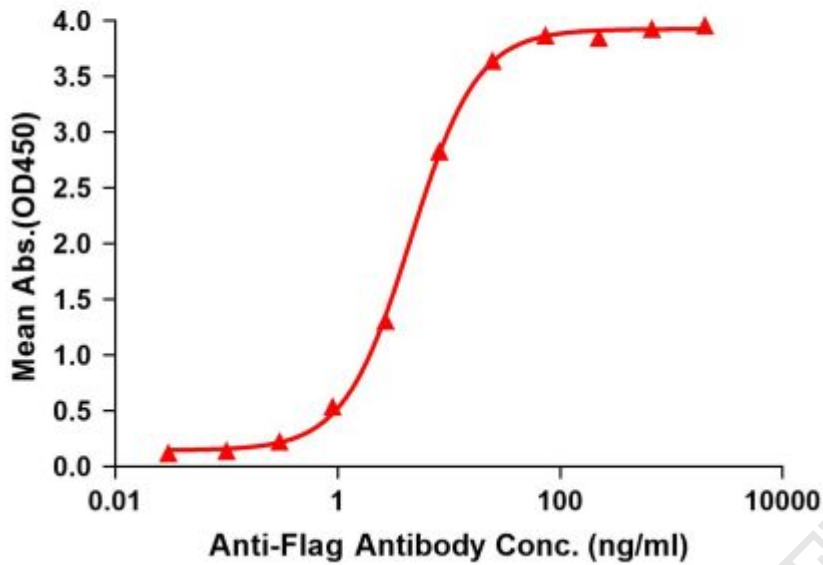


Figure1. Elisa plates were pre-coated with Flag Tag NPC1L1-Nanodisc (0.2 $\mu$ g/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with NPC1L1-Nanodisc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



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

