

PRODUCT INFORMATION

Tag	C-Flag Tag
Expression Host	HEK293
Target	TLR7
Synonyms	IMD74; TLR7-like
Description	Human TLR7 full length protein-synthetic nanodisc
Uniprot ID	Q9NYK1
Protein Families	Druggable Genome, Transmembrane
Protein Pathways	Toll-like receptor signaling pathway
Molecular Weight	The human full length TLR7 protein has a MW of 120.9 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 member of the Toll-like receptor (TLR) family which plays a fundamental role in pathogen recognition and activation of innate immunity. TLRs are highly conserved from Drosophila to humans and share structural and functional similarities. The human TLR family comprises 11 members. They recognize pathogen-associated molecular patterns (PAMPs) that are expressed on infectious agents, and mediate the production of cytokines necessary for the development of effective immunity. For the recognition of structural components in foreign microorganisms, the various TLRs exhibit different patterns of expression as well; in this way for example, TLR-3, -7, and -8 are essential in the recognition of single-stranded RNA viruses. TLR7 senses single-stranded RNA oligonucleotides containing guanosine- and uridine-rich sequences from RNA viruses, a recognition occurring in the endosomes of plasmacytoid dendritic cells and B cells.
Usage	Research use only
Conjugate	Unconjugated



ELISA assay to evaluate TLR7-Nanodisc 0.2 μ g Human TLR7-Nanodisc per well

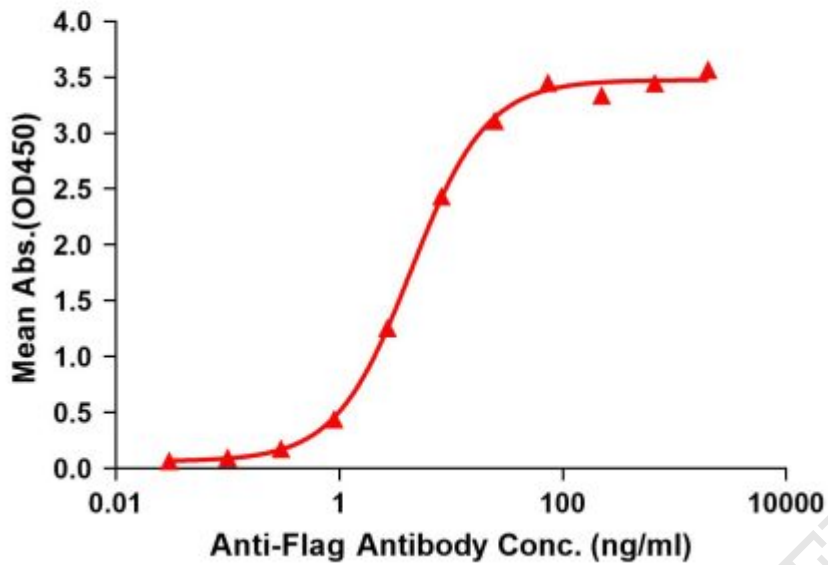


Figure1. Elisa plates were pre-coated with Flag Tag TLR7-Nanodisc (0.2 μ g/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with TLR7-Nanodisc is 4.389ng/ml.



Figure2. Human TLR7-Nanodisc, Flag Tag on SDS-PAGE

