

HUMAN TLR4 FULL LENGTH PROTEIN

Cat.#: 11122

Product Name: Human TLR4 Full Length Protein

Size: 10 µg, 50 µg and 100 µg

Synonyms: ARMD10; CD284; TLR-4

Target: TLR4

UNIPROT ID: O00206

Description: Human TLR4 full length protein-synthetic nanodisc

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. They recognize pathogen-associated molecular patterns that are expressed on infectious agents, and mediate the production of cytokines necessary for the development of effective immunity. The various TLRs exhibit different patterns of expression. *In silico* studies have found a particularly strong binding of surface TLR4 with the spike protein of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the causative agent of Coronavirus disease-2019 (COVID-19). This receptor has also been implicated in signal transduction events induced by lipopolysaccharide (LPS) found in most gram-negative bacteria. Mutations in this gene have been associated with differences in LPS responsiveness, and with susceptibility to age-related macular degeneration.

Species/Host: HEK293

Molecular Weight: The human full length TLR4 protein has a MW of 95.7 kDa

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.

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.

ELISA assay to evaluate TLR4-Nanodisc
0.2µg Human TLR4-Nanodisc per well

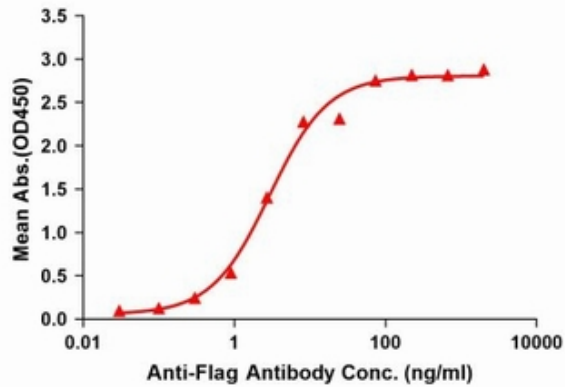


Figure1. Elisa plates were pre-coated with Flag Tag TLR4-Nanodisc (0.2 µg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with TLR4-Nanodisc is 2.939ng/ml.

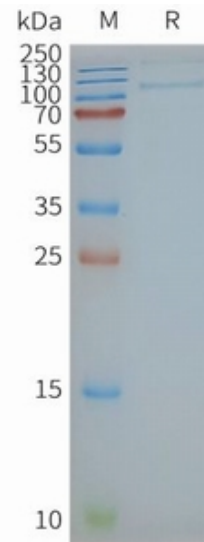


Figure2. Human TLR4-Nanodisc, Flag Tag on SDS-PAGE