ARG81398
Human TLR4 ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG81398 Human TLR4 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human TLR4 in serum, plasma and cell culture supernatants
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	The following recombinant Human proteins exhibited no cross-reactivity or interference: IL-1β, IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, IL-15, IFN gamma, TLR1 and TNF alpha. This human TLR4 ELISA Kit showed less than 6% reactivity with recombinant human TLR1, TLR2 and TLR3 proteins.
Target Name	CD284 / TLR4
Conjugation	HRP
Conjugation Note	Read at 450 nm.
Sensitivity	25 pg/ml
Sample Type	Serum, plasma and cell culture supernatants
Standard Range	125 - 8000 pg/ml
Sample Volume	100 µl
Precision	Intra-Assay CV: 6% Inter-Assay CV: 11%
Alternate Names	CD284; CD antigen CD284; ARMD10; hToll; TLR-4; TOLL; Toll-like receptor 4

Application Instructions

Assay Time	~ 3 hours

Properties

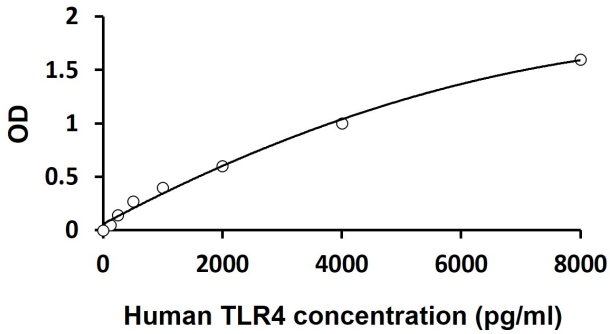
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	TLR4
Gene Full Name	toll-like receptor 4
Background	The protein encoded by this gene 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. This receptor has 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. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]
Function	Cooperates with LY96 and CD14 to mediate the innate immune response to bacterial lipopolysaccharide (LPS). Acts via MYD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Also involved in LPS-independent inflammatory responses triggered by free fatty acids, such as palmitate, and Ni(2+). Responses triggered by Ni(2+) require non-conserved histidines and are, therefore, species-specific. In complex with TLR6, promotes sterile inflammation in monocytes/macrophages in response to oxidized low-density lipoprotein (oxLDL) or amyloid-beta 42. In this context, the initial signal is provided by oxLDL- or amyloid-beta 42-binding to CD36. This event induces the formation of a heterodimer of TLR4 and TLR6, which is rapidly internalized and triggers inflammatory response, leading to the NF-kappa-B-dependent production of CXCL1, CXCL2 and CCL9 cytokines, via MYD88 signaling pathway, and CCL5 cytokine, via TICAM1 signaling pathway, as well as IL1B secretion. [UniProt]
Highlight	Related products: TLR4 antibodies; TLR4 ELISA Kits; Related news: Detecting exosomal HMGB1 for ICD research New ELISA data calculation tool: Simplify the ELISA analysis by GainData
PTM	N-glycosylated. Glycosylation of Asn-526 and Asn-575 seems to be necessary for the expression of TLR4 on the cell surface and the LPS-response. Likewise, mutants lacking two or more of the other N-glycosylation sites were deficient in interaction with LPS. [UniProt]

Images



ARG81398 Human TLR4 ELISA Kit standard curve image

ARG81398 Human TLR4 ELISA Kit results of a typical standard run with optical density reading at 450 nm.