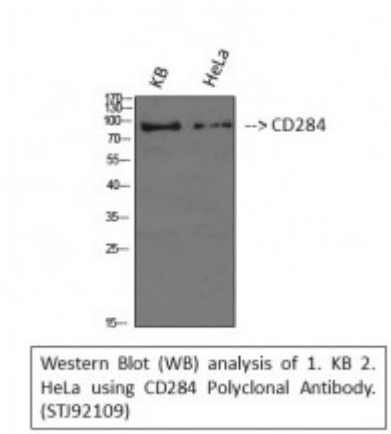
Anti-CD284 antibody



Western Blot (WB) analysis of 1. KB 2. HeLa using CD284 Polyclonal Antibody. (STJ92109)

Description	CD284 is a protein encoded by the TLR4 gene which is approximately 95,6 kDa. CD284 is localised to the cell membrane. It is involved in activated TLR4 signalling, toll-like receptor signalling pathways and the Th17 differentiation pathway. This protein falls under the toll-like receptor family which plays a fundamental role in pathogen recognition and activation of the innate immunity. 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. CD284 is expressed in the spleen, blood, lung, nervous system and kidney. Mutations in the TLR4 gene may result in the placenta, spleen and peripheral blood leukocytes. STJ92109 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of CD284 protein.

Model	STJ92109
Host	Rabbit
Reactivity	Human, Mouse
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human CD284.
Immunogen Region	Internal
Gene ID	7099
Gene Symbol	TLR4
Dilution range	WB 1:500-1:2000IHC 1:100-1:300ELISA 1:40000

Specificity	CD284 Polyclonal Antibody detects endogenous levels of CD284 protein.
Tissue Specificity	Highly expressed in placenta, spleen and peripheral blood leukocytes. Detected in monocytes, macrophages, dendritic cells and several types of T-cells.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Toll-like receptor 4 hToll CD antigen CD284
Molecular Weight	95 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:11850OMIM:603030
Alternative Names	Toll-like receptor 4 hToll CD antigen CD284
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 . Both M.tuberculosis HSP70 (dnaK) and HSP65 (groEL-2) act via this protein to stimulate NF-kappa-B expression . 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. Binds electronegative LDL (LDL(-)) and mediates the cytokine release induced by LDL(-) . Stimulation of monocytes in vitro with M.tuberculosis PstS1 induces p38 MAPK and ERK1/2 activation primarily via TLR2, but also partially via this receptor .
Sequence and Domain Family	The TIR domain mediates interaction with NOX4.
Cellular Localization	Cell membrane. Upon complex formation with CD36 and TLR6, internalized through dynamin-dependent endocytosis.
Post-translational Modifications	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.