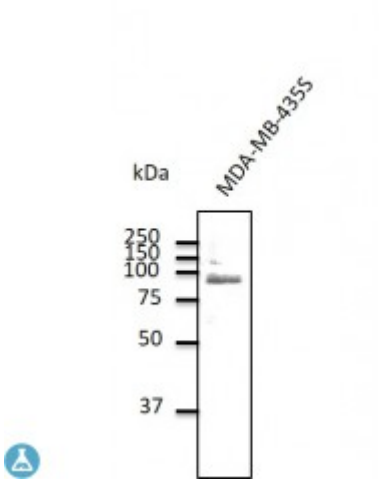
Anti-TLR2 antibody



Description	Goat polyclonal antibody to TLR2. It is a 84 kDa type I transmembrane glycoprotein and a member of TLR family. It contains many leucine-rich repeat sequences and the intracellular Toll Interleukin Receptor Domain. TLR2 forms heterodimer with TLR1 and TLR6. It is expressed in peripheral blood leukocytes, and highly expressed in monocytes in bone marrow, lymph nodes, and spleen. It is also detectable in other tissues. This protein recognizes molecular patterns of bacteria, fungi, protozoan pathogens and stimulates pro-inflammatory cytokines as part of innate immunity.
Model	STJ140050
Host	Goat
Reactivity	Avian, Bovine, Canine, Donkey, Feline, Goat, Guinea Pig, Hamster, Horse, Human, Mouse, Other, Porcine, Rabbit, Rat, Sheep, Simian
Applications	WB
Immunogen	Purified recombinant peptide derived from within residues 736 aa to the C-terminus of human TLR2 produced in E. coli.
Immunogen Region	C-Term
Gene ID	7097
Gene Symbol	TLR2
Dilution range	Western blot 1:500-1:2,000Immunofluorescence NDImmunohistochemistry (paraffin) NDImmunohistochemistry (frozen) ND
Tissue Specificity	Highly expressed in peripheral blood leukocytes, in particular in monocytes, in bone marrow, lymph node and in spleen. Also detected in lung and in fetal

	liver. Levels are low in other tissues.
Purification	This antibody is epitope-affinity purified from goat antiserum.
Note	For research use only (RUO).
Protein Name	Toll-like receptor 2 Toll/interleukin-1 receptor-like protein 4 CD antigen CD282
Molecular Weight	90 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS, 20% glycerol and 0.05% sodium azide.
Concentration	4 mg/mL
Storage Instruction	Store at -20°, and avoid repeated freeze-thaw cycles.
Database Links	HGNC:11848OMIM:246300
Alternative Names	Toll-like receptor 2 Toll/interleukin-1 receptor-like protein 4 CD antigen CD282
Function	Cooperates with LY96 to mediate the innate immune response to bacterial lipoproteins and other microbial cell wall components. Cooperates with TLR1 or TLR6 to mediate the innate immune response to bacterial lipoproteins or lipopeptides . Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. May also activate immune cells and promote apoptosis in response to the lipid moiety of lipoproteins . Recognizes mycoplasmal macrophage-activating lipopeptide-2kD (MALP-2), soluble tuberculosis factor (STF), phenol-soluble modulin (PSM) and B.burgdorferi outer surface protein A lipoprotein (OspA-L) cooperatively with TLR6 . Stimulation of monocytes in vitro with M.tuberculosis PstS1 induces p38 MAPK and ERK1/2 activation primarily via this receptor, but also partially via TLR4 . MAPK activation in response to bacterial peptidoglycan also occurs via this receptor . Acts as a receptor for M.tuberculosis lipoproteins LprA, LprG, LpqH and PstS1, some lipoproteins are dependent on other coreceptors (TLR1, CD14 and/or CD36); the lipoproteins act as agonists to modulate antigen presenting cell functions in response to the pathogen . M.tuberculosis HSP70 (dnaK) but not HSP65 (groEL-2) acts via this protein to stimulate NF-kappa-B expression . Recognizes M.tuberculosis major T-antigen EsxA (ESAT-6) which inhibits downstream MYD88-dependent signaling (shown in mouse) . Forms activation clusters composed of several receptors depending on the ligand, these clusters trigger signaling from the cell surface and subsequently are targeted to the Golgi in a lipid-raft dependent pathway. Forms the cluster TLR2:TLR6:CD14:CD36 in response to diacylated lipopeptides and TLR2:TLR1:CD14 in response to triacylated lipopeptides . Required for normal uptake of M.tuberculosis, a process that is inhibited by M.tuberculosis LppM .
Sequence and Domain Family	Ester-bound lipid substrates are bound through a crevice formed between the LRR 11 and LRR 12. The ATG16L1-binding motif mediates interaction with ATG16L1.

Cellular Localization	Membrane Cytoplasmic vesicle, phagosome membrane Membrane raft. Does not reside in lipid rafts before stimulation but accumulates increasingly in the raft upon the presence of the microbial ligand. In response to diacylated lipoproteins, TLR2:TLR6 heterodimers are recruited in lipid rafts, this recruitment determines the intracellular targeting to the Golgi apparatus. Triacylated lipoproteins induce the same mechanism for TLR2:TLR1 heterodimers.
Post-translational Modifications	Glycosylation of Asn-442 is critical for secretion of the N-terminal ectodomain of TLR2.