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TLR2 Polyclonal Antibody

Rabbit Anti Human Polyclonal Antibody
Catalog # ABV11721

Product Information

Application	WB, IHC-P, FC
Primary Accession	O60603
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	89838

Additional Information

Gene ID	7097
Positive Control	WB, IHC-P, FC
Application & Usage	WB~~1:1000, IHC-P~~1:10~50, FC~~1:10~5
Other Names	Toll-like receptor 2, Toll/interleukin-1 receptor-like protein 4, CD282, TLR2, TIL4
Target/Specificity	TLR2
Antibody Form	Liquid
Appearance	Colorless liquid
Formulation	PBS with 0.09% (W/V) sodium azide.
Handling	The antibody solution should be gently mixed before use.
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	TLR2 Polyclonal Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TLR2 (HGNC:11848)
Synonyms	TIL4
Function	Cooperates with LY96 to mediate the innate immune response to bacterial lipoproteins and other microbial cell wall components. Cooperates with TLR1

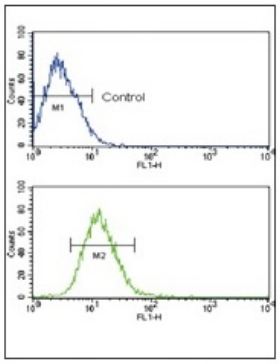
	or TLR6 to mediate the innate immune response to bacterial lipoproteins or lipopeptides (PubMed:17889651, PubMed:21078852). Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. May also activate immune cells and promote apoptosis in response to the lipid moiety of lipoproteins (PubMed:10426995, PubMed:10426996). 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 (PubMed:11441107). 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 (PubMed:16622205). MAPK activation in response to bacterial peptidoglycan also occurs via this receptor (PubMed:16622205). 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 (PubMed:19362712). M.tuberculosis HSP70 (dnaK) but not HSP65 (groEL-2) acts via this protein to stimulate NF-kappa-B expression (PubMed:15809303). Recognizes M.tuberculosis major T-antigen EsxA (ESAT-6) which inhibits downstream MYD88-dependent signaling (shown in mouse) (By similarity). 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 (PubMed:16880211). Required for normal uptake of M.tuberculosis, a process that is inhibited by M.tuberculosis LppM (By similarity).
Cellular Location	Membrane {ECO:0000250|UniProtKB:Q9QUN7}; Single- pass type I membrane protein. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:Q9QUN7}; Single-pass type I membrane protein. Membrane raft. Note=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.
Tissue Location	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

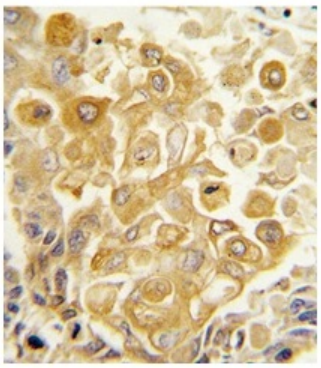
Background

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 (PAMPs) 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 gene is expressed most abundantly in peripheral blood leukocytes, and mediates host response to Gram-positive bacteria and yeast via stimulation of NF-kappaB.

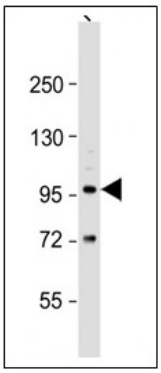
Images

Flow cytometric analysis of CEM cells using TLR2 antibody(N-term)(bottom histogram) compared to a negative control cell(top histogram).





Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with TLR2 antibody(N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining.



Western blot analysis of TLR2 antibody in Ramos cell line lysates.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.