

# Immunotag™ TLR2 Monoclonal Antibody

Antibody Specification	
Catalog No.	ITM0621
Product Description	Immunotag™ TLR2 Monoclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	TLR2
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Mouse
Immunogen	Purified recombinant fragment of human TLR2 expressed in E. Coli.
Specificity	TLR2 Monoclonal Antibody detects endogenous levels of TLR2 protein.
Purification	Affinity purification
Form	Ascitic fluid containing 0.03% sodium azide.
Gene Name	TLR2
Accession No.	O60603 Q9QUN7
Alternate Names	TLR2; TIL4; Toll-like receptor 2; Toll/interleukin-1 receptor-like protein 4; CD antigen CD282

## Antibody Specification

Description	toll like receptor 2(TLR2) Homo sapiens 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. This protein is a cell-surface protein that can form heterodimers with other TLR family members to recognize conserved molecules derived from microorganisms known as pathogen-associated molecular patterns (PAMPs). Activation of TLRs by PAMPs leads to an up-regulation of signaling pathways to modulate the host's inflammatory response. This gene is also thought to promote apoptosis in response to bacterial lipoproteins. This gene has been implicated in the pathogenesis of several autoimmune diseases. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016],
Cell Pathway/ Category	Toll_Like,
Protein Expression	Blood,Fetal lung,Leukocyte,Prostate,Synovial membrane tissue,
Subcellular Localization	cytoplasm,Golgi apparatus,plasma membrane,integral component of plasma membrane,cell surface,integral component of membrane,phagocytic vesicle membrane,intrinsic component of plasma membrane,Toll-like receptor 1-Toll-like receptor 2 protein complex,c
Protein Function	function:Cooperates with LY96 to mediate the innate immune response to bacterial lipoproteins and other microbial cell wall components. Cooperates with TLR1 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 promote apoptosis in response to 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.,polymorphism:Genetic variations in TLR2 are associated with susceptibility to leprosy [MIM:246300]. Leprosy is a chronic disease associated with depressed cellular (but not humoral) immunity, the bacterium requires a lower temperature than 37 degrees Celsius and thrives particularly in peripheral Schwann cells and macrophages. The Trp-677 polymorphism in the intracellular domain of TLR2 has a role in susceptibility to lepromatous leprosy. Wild-type TLR2 mediates CD14-enhanced Mycobacterium leprae-dependent activation of NFKB1, but TLR2 containing the Trp-677 polymorphism did not. The impaired function of the Trp-677 polymorphism provides a molecular mechanism for the poor cellular immune response associated with lepromatous leprosy.,PTM:Glycosylation of Asn-442 is critical for secretion of the N-terminal ectodomain of TLR2.,similarity:Belongs to the Toll-like receptor family.,similarity:Contains 1 TIR domain.,similarity:Contains 14 LRR (leucine-rich) repeats.,subunit:Interacts with LY96, TLR1 and TLR6 (via extracellular domain). Binds MYD88 (via TIR domain). Interacts with TICAM1. Ligand binding induces the formation of a heterodimer with TLR1.,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.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.