Toll Like Receptor 2 (TLR2) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Toll Like Receptor 2 (TLR2), Polyclonal Antibody
Full Product Name	APC/CY7-Linked Polyclonal Antibody to Toll Like Receptor 2 (TLR2)
Product Gene Name	anti-TLR2 antibody
Product Synonym Names	CD282; TIL4; Toll/interleukin-1 receptor-like protein 4
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Rat
Concentration	>=100ug/ml (lot specific)
Matching Pairs	Unconjugated Antibody: TLR2 (MBS2004923) APC-CY7 Conjugated Antibody: TLR2 (MBS2045708)
Molecular Weight	89,838 Da
OMIM	AF051152 mRNA
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Immunogen	TLR2 (Cys595~Thr760)
Conjugation	APC-Cy7
Cross Reactivity	Rat
Unconjugated Antibody	The unconjugated antibody version of this item is also available as catalog #MBS2004923
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for anti-TLR2 antibody	Western Blot (WB), Immunocytochemistry (ICC), Immunohistochemistry (IHC) Formalin/Paraffin, ELISA (ELISA)
Related Product Information for anti-TLR2 antibody	MBS2045708 is an antibody targeting TLR2. Also known as APC/CY7-Linked Polyclonal Antibody to Toll Like Receptor 2 (TLR2). Reactive in Rat. Host: Rabbit.
Other Notes	Small volumes of anti-TLR2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TLR2. It may not necessarily be applicable to this product.

NCBI GI #	974005312
NCBI GeneID	7097
NCBI Accession #	NP_001305725.1
UniProt Secondary Accession #	O15454; Q8NI00; B3Y612; D1CS45; D1CS48; D1CS49
UniProt Related Accession #	O60603

GenBank Nucleotide #	NM_001318796.1
NCBI Official Full Name	toll-like receptor 2
NCBI Official Synonym Full Names	toll like receptor 2
NCBI Official Symbol	TLR2
NCBI Official Synonym Symbols	TIL4; CD282
UniProt Protein Name	Toll-like receptor 2
UniProt Synonym Protein Names	Toll/interleukin-1 receptor-like protein 4; CD_antigen: CD282
Protein Family	Toll-like receptor
UniProt Gene Name	TLR2
UniProt Synonym Gene Names	TIL4
NCBI Protein Information	toll-like receptor 2
NCBI Summary for TLR2	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]
UniProt Comments for TLR2	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:21078852, PubMed:17889651). 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) (). 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 ().
Research Articles on TLR2	**1.** Co-silencing of the TLR-2 and TLR-4 genes inhibited NF- kappaB expression and TNF-a/IL-8 secretion, while increasing the survival rate of RGCs. Therefore, a high-glucose environment can potentiate the expression of TLR-2 and TLR-4 in RGCs, activate the downstream signaling pathway
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