TLR9 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	TLR9, Polyclonal Antibody
Full Product Name	TLR9, CT (TLR9, Toll-like receptor 9, CD289) (MaxLight 550)
Product Gene Name	anti-TLR9 antibody
Product Synonym Names	TLR9; Toll-like receptor 9; CD289
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight550.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight550 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	115,860 Da
Chromosome Location	Chromosome: 3; NC_000003.11 (52255096..52260179, complement). Location: 3p21.3
OMIM	605474
3D Structure	ModBase 3D Structure for Q9NR96
Immunogen	TLR9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 841-870 amino acids from the C-terminal region of human TLR9.
Conjugate	MaxLight550
Note	Preservative Free
Product Categories/Family for anti-TLR9 antibody	Antibodies; Toll Like Receptors (TLR)
Applications Tested/Suitable for anti-TLR9 antibody	Flow Cytometry (FC/FACS), FLISA, Western Blot (WB)
Application Notes for anti-TLR9 antibody	FC/FACS: 1:10-50 FLISA: 1:1,000 WB: 1:100-500 Applications are based on unconjugated antibody.
Related Product Information for anti-TLR9 antibody	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 preferentially expressed in immune cell rich tissues, such as spleen, lymph node, bone marrow and peripheral blood leukocytes. Studies in mice and human indicate that this receptor mediates cellular response to unmethylated CpG dinucleotides in bacterial DNA to mount an innate immune response.

Product References and Citations for anti-TLR9 antibody	Engin, A., et al. Microbes Infect. 12 (12-13), 1071-1078 (2010): Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010): Veltkamp, M., et al. Clin. Exp. Immunol. 162(1):68-74(2010). Fiola, S., et al. J. Immunol. 185(6):3620-3631(2010). Selvaraj, P., et al. Tuberculosis (Edinb) 90(5):306-310(2010).
Other Notes	Small volumes of anti-TLR9 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.
Searchable Terms for TLR9 purchase	MBS6355939 is an antibody targeting TLR9. Also known as TLR9, CT (TLR9, Toll-like receptor 9, CD289) (MaxLight 550). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TLR9. It may not necessarily be applicable to this product.

NCBI GI #	8394456
NCBI GeneID	54106
NCBI Accession #	NP_059138.1
UniProt Primary Accession #	Q9NR96
UniProt Secondary Accession #	Q6UVZ2; Q9HD68; Q9HD69; Q9HD70; Q9NYC2; Q9NYC3; B3Y661; D1CS56
UniProt Related Accession #	Q9NR96
GenBank Nucleotide #	NM_017442.3
NCBI Official Full Name	toll-like receptor 9
NCBI Official Synonym Full Names	toll-like receptor 9
NCBI Official Symbol	TLR9
NCBI Official Synonym Symbols	CD289
UniProt Protein Name	Toll-like receptor 9
Protein Family	Toll-like receptor
UniProt Gene Name	TLR9
UniProt Entry Name	TLR9_HUMAN
NCBI Protein Information	toll-like receptor 9

UniProt Comments for TLR9	TLR9: Key component of innate and adaptive immunity. TLRs (Toll-like receptors) control host immune response against pathogens through recognition of molecular patterns specific to microorganisms. TLR9 is a nucleotide-sensing TLR which is activated by unmethylated cytidine-phosphate-guanosine (CpG) dinucleotides. Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Controls lymphocyte response to Helicobacter infection. Interacts with MYD88 via their respective TIR domains. Interacts (via transmembrane domain) with UNC93B1. Interacts with CD300LH; the interaction may promote full activation of TLR9-triggered innate responses. Interacts with BTK. Interacts with CNPY3 and HSP90B1; this interaction is required for proper folding in the endoplasmic reticulum. Highly expressed in spleen, lymph node, tonsil and peripheral blood leukocytes, especially in plasmacytoid pre- dendritic cells. Levels are much lower in monocytes and CD11c+ immature dendritic cells. Also detected in lung and liver. Belongs to the Toll-like receptor family. 5 isoforms of the human protein are produced by alternative splicing. Protein type: Receptor, misc.; Membrane protein, integral Chromosomal Location of Human Ortholog: 3p21.3 Cellular Component: Golgi membrane; endoplasmic reticulum membrane; endoplasmic reticulum; basolateral plasma membrane; lysosome; apical plasma membrane; cytoplasm; plasma membrane; integral to membrane; extracellular region; endosome membrane; endosome Molecular Function: siRNA binding; transmembrane receptor activity; interleukin-1 receptor binding Biological Process: positive regulation of JNK activity; regulation of cytokine secretion; positive regulation of interleukin-12 production; maintenance of gastrointestinal epithelium; positive regulation of JNK cascade; positive regulation of NF-kappaB import into nucleus; positive regulation of interferon-alpha biosynthetic process; defense response to Gram-negative bacterium; positive regulation of interleukin-18 production; positive regulation of interleukin-10 production; activation of NF-kappaB transcription factor; positive regulation of interleukin-8 production; response to molecule of bacterial origin; negative regulation of interleukin-8 production; positive regulation of interferon-beta production; negative regulation of interleukin-6 production; inflammatory response; positive regulation of I-kappaB kinase/NF-kappaB cascade; positive regulation of interleukin-6 production; positive regulation of tumor necrosis factor production; positive regulation of chemokine production; positive regulation of toll-like receptor signaling pathway; MyD88-dependent toll-like receptor signaling pathway; inhibition of NF-kappaB transcription factor; positive regulation of interferon-beta biosynthetic process; defense response to bacterium; toll-like receptor signaling pathway; negative regulation of toll-like receptor signaling pathway; insulin receptor signaling pathway; innate immune response; positive regulation of transcription from RNA polymerase II promoter; toll-like receptor 9 signaling pathway; I-kappaB phosphorylation; positive regulation of interferon-gamma biosynthetic process; positive regulation of nitric-oxide synthase biosynthetic process; positive regulation of inflammatory response
Research Articles on TLR9	**1.** role of TLR-9 in antiviral innate immune sensing of MVMp and H-1PV
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