

TLR9 Antibody
Catalog # ASC10394

Specification

TLR9 Antibody - Product Information

Application	IF
Primary Accession	Q9NR96
Other Accession	AAH32713 , 54106
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 104, 111 kDa

Application Notes	Observed: 94 kDa KDa TLR9 antibody can be used for detection of TLR9 by Western blot at 1 µg/mL. Antibody can also be used for immunocytochemistry starting at 2 µg/mL. For immunofluorescence start at 20 µg/mL.
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TLR9 Antibody - Additional Information

Gene ID	54106
Other Names	
TLR9 Antibody: CD289, Toll-like receptor 9, toll-like receptor 9	

Target/Specificity

TLR9 antibody was raised against a peptide corresponding to 15 amino acids near the center of human TLR9.
The immunogen is located within amino acids 840 - 890 of TLR9.

Reconstitution & Storage

TLR9 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

TLR9 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TLR9 Antibody - Protein Information

Name TLR9

Function

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 (PubMed:14716310). Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:11564765, PubMed:17932028). Controls lymphocyte response to Helicobacter infection (By similarity). Upon CpG stimulation, induces B-cell proliferation, activation, survival and antibody production (PubMed:23857366).

Cellular Location

Endoplasmic reticulum membrane; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q9EQU3}. Early endosome membrane. Lysosome {ECO:0000250|UniProtKB:Q9EQU3} Cytoplasmic vesicle, phagosome {ECO:0000250|UniProtKB:Q9EQU3}. Golgi apparatus membrane. Note=Relocalizes from endoplasmic reticulum to endosome and lysosome upon stimulation with agonist. Exit from the ER requires UNC93B1. Endolysosomal localization is required for proteolytic cleavage and subsequent activation Intracellular localization of the active receptor may prevent from responding to self nucleic acid. {ECO:0000250|UniProtKB:Q9EQU3, ECO:0000269|PubMed:14716310, ECO:0000269|PubMed:38169466}

Tissue Location

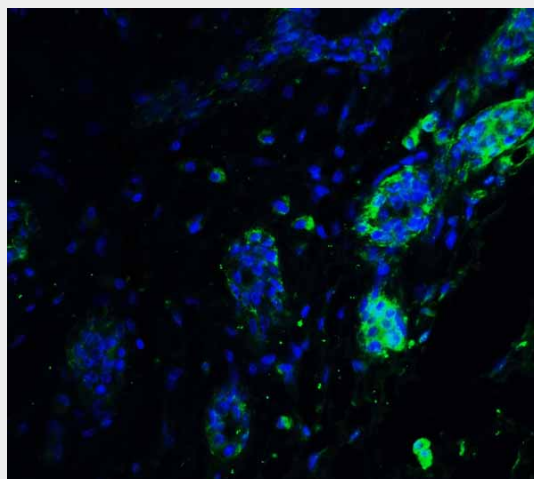
Highly expressed in spleen, lymph node, tonsil and peripheral blood leukocytes, especially in plasmacytoid pre-dendritic cells. Levels are much lower in monocytes and CD11c+ immature dendritic cells. Also detected in lung and liver

TLR9 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TLR9 Antibody - Images



Immunofluorescence of ATF6 in human breast tissue with ATF6 antibody at 20 µg/ml.

TLR9 Antibody - Background

TLR9 Antibody: Toll-like receptors (TLRs) are evolutionarily conserved pattern-recognition molecules resembling the toll proteins that mediate antimicrobial responses in *Drosophila*. These proteins recognize different microbial products during infection and serve as an important link between the innate and adaptive immune responses. TLR9 forms a subfamily along with TLR7 and TLR8 that recognize viral RNA and CpG DNA sequences and are localized in intracellular acidic compartments such as the phagolysosome. Unlike other TLRs which act through adaptor molecules such as TOLLIP, TIRAP, TRIF, and MyD88 to activate various kinases and transcription factors to respond to potential infection, TLR9 is strictly dependent on MyD88.

TLR9 Antibody - References

Takeda K, Kaisho T, and Akira S. Toll-like receptors. *Annu. Rev. Immunol.*2003; 21:335-76.

Janeway CA Jr. and Medzhitov R. Innate immune recognition. *Annu. Rev. Immunol.*2002; 20:197-216.

Wagner H. The immunobiology of the TLR9 subfamily. *Trends Immunol.*2004; 381-6

Nishiya T and DeFranco AL. Ligand-regulated chimeric receptor approach reveals distinctive subcellular localization and signaling properties of the Toll-like receptors. *J. Biol. Chem.*2004; 279:19008-17.