

**TLR9 Antibody**  
Catalog # ASC10393**Specification**

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**TLR9 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O9NR96</a>
Other Accession	<a href="#">AAH32713</a> , <a href="#">54106</a>
Reactivity	<b>Human, Mouse</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>IgG</b>
Application Notes	<b>TLR9 antibody can be used for detection of TLR9 by Western blot at 0.5 to 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2 µg/mL. For immunofluorescence start at 10 µg/mL.</b>

**TLR9 Antibody - Additional Information**

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

**Target/Specificity**

TLR9 antibody was raised against a peptide corresponding to 16 amino acids near the carboxy terminus of human TLR9. <br><br>The immunogen is located within amino acids 960 - 1010 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:<a href="http://www.uniprot.org/citations/14716310" target="\_blank">14716310</a>). Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory

response (PubMed:<a href="http://www.uniprot.org/citations/11564765" target="\_blank">11564765</a>, PubMed:<a href="http://www.uniprot.org/citations/17932028" target="\_blank">17932028</a>). Controls lymphocyte response to Helicobacter infection (By similarity). Upon CpG stimulation, induces B-cell proliferation, activation, survival and antibody production (PubMed:<a href="http://www.uniprot.org/citations/23857366" target="\_blank">23857366</a>).

#### 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

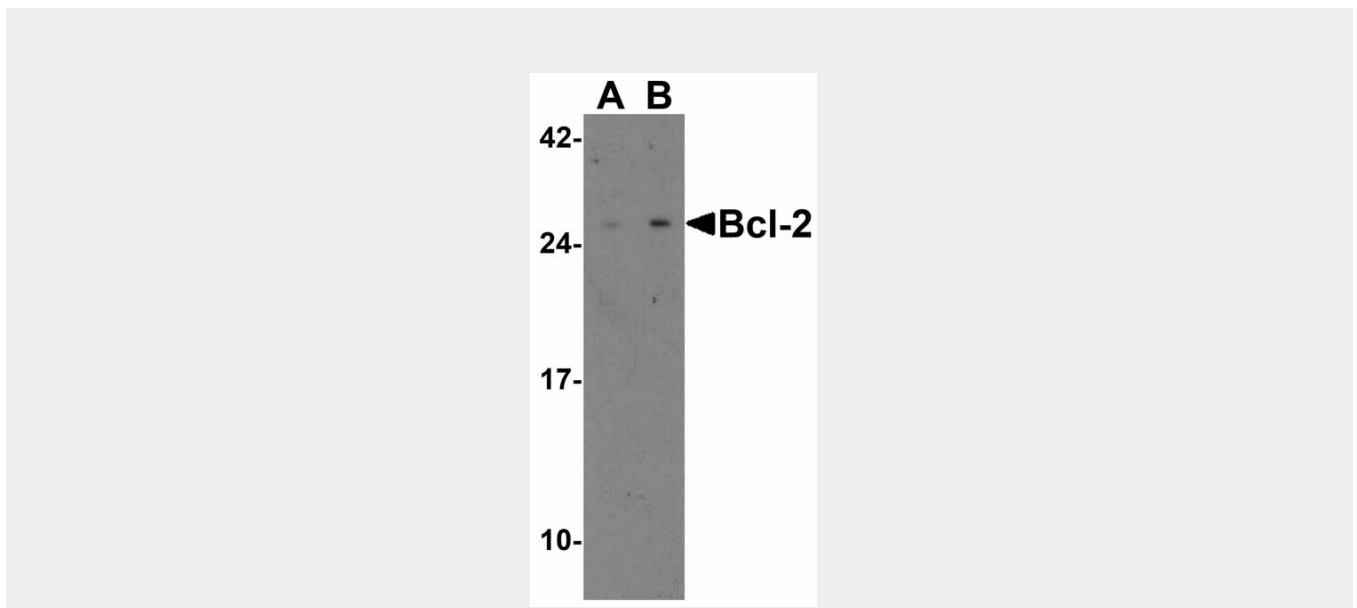
Highly expressed in spleen, lymph node, tonsil and peripheral blood leukocytes, especially in plasmacytoid pre-dendritic cells. Levels are much lower in monocytes and CD11c+ immature dendritic cells. Also detected in lung and liver

#### 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



Western blot analysis of Bcl-2 in A-20 cell lysate with Bcl-2 antibody at (A) 1 and (B) 2 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.