

TLR9 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP1509a**Specification**

TLR9 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q9NR96](#)**TLR9 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 54106**Other Names**

Toll-like receptor 9, CD289, TLR9

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1509a](/product/products/AP1509a) was selected from the N-term region of human Human TLR9 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TLR9 Antibody (N-term) Blocking Peptide - 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. Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:[11564765](http://www.uniprot.org/citations/11564765), PubMed:[17932028](http://www.uniprot.org/citations/17932028)). Controls lymphocyte response to Helicobacter infection (By similarity). Upon CpG stimulation, induces B-cell proliferation, activation, survival and antibody production (PubMed:[23857366](http://www.uniprot.org/citations/23857366)).

Cellular Location

Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9EQU3}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q9EQU3}. Endosome {ECO:0000250|UniProtKB:Q9EQU3}. Lysosome {ECO:0000250|UniProtKB:Q9EQU3}. Cytoplasmic vesicle, phagosome {ECO:0000250|UniProtKB:Q9EQU3}. 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}

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 (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

TLR9 Antibody (N-term) Blocking Peptide - Images

TLR9 Antibody (N-term) Blocking Peptide - Background

TLR9 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. TLR9 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.

TLR9 Antibody (N-term) Blocking Peptide - References

Clark, H.F., et al., *Genome Res.* 13(10):2265-2270 (2003). Bourke, E., et al., *Blood* 102(3):956-963 (2003). Fenhalls, G., et al., *Am. J. Respir. Cell Mol. Biol.* 29(1):28-38 (2003). Equils, O., et al., *J. Immunol.* 170(10):5159-5164 (2003). Gantner, F., et al., *Eur. J. Immunol.* 33(6):1576-1585 (2003).