

TLR9 (N-15): sc-13215

BACKGROUND

The toll-like receptors (TLR) are a family of human receptors that share homology with the *Drosophila* toll Receptors, which are involved in mediating dorsoventral polarization in developing *Drosophila* embryos and participate in host immunity. The TLR family members are characterized by a highly conserved toll homology (TH) domain, which is essential for toll-induced signal transductions. TLRs are type I transmembrane receptors that contain an extracellular domain consisting of several leucine-rich regions and a single cytoplasmic Toll/IL-1R like domain. Three TLR family members, TLR7, TLR8 and TLR9, belong to a subfamily of TLRs, which are differentially expressed. TLR7 is expressed in lung, placenta and spleen. TLR8 is expressed in lung and peripheral blood leukocytes, and TLR9 is predominantly expressed in spleen, lymph nodes, bone marrow and peripheral blood leukocytes. TLR7, TLR8 and TLR9 stimulate the NF κ B signaling pathway, suggesting that they play a role in the immune response.

REFERENCES

1. Gay, N.J., et al. 1991. *Drosophila* Toll and IL-1 receptor. *Nature* 351: 355-356.
2. Rock, F.L., et al. 1998. A family of human receptors structurally related to *Drosophila* Toll. *Proc. Natl. Acad. Sci. USA* 95: 588-593.
3. Brightbill, H.D., et al. 1999. Host defense mechanisms triggered by microbial lipoproteins through toll-like receptors. *Science* 285: 732-736.
4. Du, X., et al. 2000. Three novel mammalian toll-like receptors: gene structure, expression, and evolution. *Eur. Cytokine Netw.* 11: 362-371.
5. Chuang, T.H., et al. 2000. Cloning and characterization of a sub-family of human toll-like receptors: hTLR7, hTLR8, hTLR9. *Eur. Cytokine Netw.* 11: 372-378.

CHROMOSOMAL LOCATION

Genetic locus: TLR9 (human) mapping to 3p21.2; Tlr9 (mouse) mapping to 9 F1.

SOURCE

TLR9 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TLR9 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-13215 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

TLR9 (N-15) is recommended for detection of TLR9 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TLR9 (N-15) is also recommended for detection of TLR9 in additional species, including bovine.

Suitable for use as control antibody for TLR9 siRNA (h): sc-40270, TLR9 siRNA (m): sc-40271, TLR9 shRNA Plasmid (h): sc-40270-SH, TLR9 shRNA Plasmid (m): sc-40271-SH, TLR9 shRNA (h) Lentiviral Particles: sc-40270-V and TLR9 shRNA (m) Lentiviral Particles: sc-40271-V.

Molecular Weight of TLR9: 113 kDa.

Molecular Weight of glycosylated TLR9: 160 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Rumio, C., et al. 2004. Degranulation of paneth cells via toll-like receptor 9. *Am. J. Pathol.* 165: 373-381.

RESEARCH USE

For research use only, not for use in diagnostic procedures.


 MONOS
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Try **TLR9 (26C593): sc-52966**, our highly recommended monoclonal alternative to TLR9 (N-15).