

# TLR9 (26C593): sc-52966

## 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 $\kappa$ B signaling pathway, suggesting that they play a role in the immune response.

## CHROMOSOMAL LOCATION

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

## SOURCE

TLR9 (26C593) is a mouse monoclonal antibody raised against amino acids 268-284 of TLR9 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

TLR9 (26C593) is recommended for detection of TLR9 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for TLR9 siRNA (h): sc-40270, TLR9 siRNA (m): sc-40271, TLR9 siRNA (r): sc-270187, TLR9 shRNA Plasmid (h): sc-40270-SH, TLR9 shRNA Plasmid (m): sc-40271-SH, TLR9 shRNA Plasmid (r): sc-270187-SH, TLR9 shRNA (h) Lentiviral Particles: sc-40270-V, TLR9 shRNA (m) Lentiviral Particles: sc-40271-V and TLR9 shRNA (r) Lentiviral Particles: sc-270187-V.

Molecular Weight of TLR9: 113 kDa.

Molecular Weight of glycosylated TLR9: 160 kDa.

Positive Controls: RAW 309 Cr.1 cell lysate: sc-3814, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

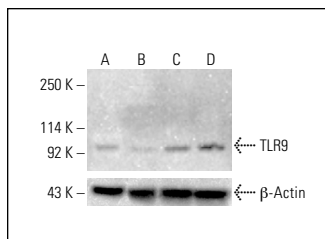
## STORAGE

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

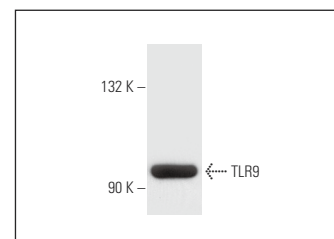
## RESEARCH USE

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

## DATA



TLR9 (26C593): sc-52966. Western blot analysis of TLR9 expression in K-562 (A), untreated HCT-116 (B) and chemically-treated HCT-116 (C, D) whole cell lysates.  $\beta$ -Actin (C4): sc-47778 used as loading control. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



TLR9 (26C593): sc-52966. Western blot analysis of TLR9 expression in HeLa whole cell lysate.

## SELECT PRODUCT CITATIONS

- Lin, H.W., et al. 2014. Regulation of virus-induced inflammatory response by *Dunaliella salina* alga extract in macrophages. *Food Chem. Toxicol.* 71: 159-165.
- He, M., et al. 2016. The ORF3 protein of genotype 1 hepatitis E virus suppresses TLR3-induced NF $\kappa$ B signaling via TRADD and RIP1. *Sci. Rep.* 6: 27597.
- Jiang, F., et al. 2018. Discovery of a potent Grp94 selective inhibitor with anti-inflammatory efficacy in a mouse model of ulcerative colitis. *J. Med. Chem.* 61: 9513-9533.
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- Campolo, M., et al. 2020. TLR7/8 in the pathogenesis of Parkinson's disease. *Int. J. Mol. Sci.* 21: 9384.
- Dubový, P., et al. 2021. Toll-like receptor 9-mediated neuronal innate immune reaction is associated with initiating a pro-regenerative state in neurons of the dorsal root ganglia non-associated with sciatic nerve lesion. *Int. J. Mol. Sci.* 22: 7446.
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- Tyrrell, D.J., et al. 2022. Aging alters the aortic proteome in health and thoracic aortic aneurysm. *Arterioscler. Thromb. Vasc. Biol.* 42: 1060-1076.
- Konaka, H., et al. 2023. Secretion of mitochondrial DNA via exosomes promotes inflammation in Behçet's syndrome. *EMBO J.* 42: e112573.
- Su, T., et al. 2024. Macrophage-hepatocyte circuits mediated by grancalcin aggravate the progression of metabolic dysfunction associated steatohepatitis. *Adv. Sci.* 11: e2406500.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.