SANTA CRUZ BIOTECHNOLOGY, INC.

TLR5 (19D759.2): sc-57461

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Six human homologs of the *Drosophila* Toll receptor were initially identified based on their sequence similarities and designated Toll-like receptors (TLR). Toll receptors are involved in mediating dorsoventral polarization in the developing *Drosophila* embryo and also participate in the host immunity. The TLR family of proteins are characterized by a highly conserved Toll homology (TH) domain, which is essential for Toll-induced signal transduction. TLR1, as well as the other TLR family members, are type I transmembrane receptors that characteristically contain an extracellular domain consisting of several leucine-rich regions along with a single cytoplasmic Toll/IL-1R-like domain. TLR2 and TLR4 are activated in response to lipopolysacchride (LPS) stimulation, which results in the activation and translocation of NFκB and suggests that these receptors are involved in mediating inflammatory responses. TLR5 specifically participates in the innate immune response to microbial agents. TLR5 is highly expressed in ovary and in peripheral blood leukocytes, most abundantly in monocytes and, to a lesser extent, in prostate and testis.

CHROMOSOMAL LOCATION

Genetic locus: TLR5 (human) mapping to 1q41; Tlr5 (mouse) mapping to 1 H5.

SOURCE

TLR5 (19D759.2) is a mouse monoclonal antibody raised against amino acids 700-800 of TLR5 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

TLR5 (19D759.2) is recommended for detection of TLR5 of mouse, rat and human 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

TLR5 (19D759.2) is also recommended for detection of TLR5 in additional species, including canine.

Suitable for use as control antibody for TLR5 siRNA (h): sc-40262, TLR5 siRNA (m): sc-40263, TLR5 shRNA Plasmid (h): sc-40262-SH, TLR5 shRNA Plasmid (m): sc-40263-SH, TLR5 shRNA (h) Lentiviral Particles: sc-40262-V and TLR5 shRNA (m) Lentiviral Particles: sc-40263-V.

Molecular Weight of TLR5: 110-120 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, NAMALWA cell lysate: sc-2234 or HL-60 whole cell lysate: sc-2209.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 3) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

SELECT PRODUCT CITATIONS

1. Rieber, N., et al. 2013. Flagellin induces myeloid-derived suppressor cells: implications for *Pseudomonas aeruginosa* infection in cystic fibrosis lung disease. J. Immunol. 190: 1276-1284.
2. Luangsay, S., et al. 2015. Expression and functionality of Toll- and RIG-like receptors in HepaRG cells. J. Hepatol. 63: 1077-1085.
3. Sun, G., et al. 2017. Esculentoside A ameliorates cecal ligation and puncture-induced acute kidney injury in rats. Exp. Anim. 66: 303-312.
4. Moretti, I.F., et al. 2018. Plasmatic membrane Toll-like receptor expressions in human astrocytomas. PLoS ONE 13: e0199211.
5. Farini, A., et al. 2020. PTX3 predicts myocardial damage and fibrosis in duchenne muscular dystrophy. Front. Physiol. 11: 403.
6. Cai, Y., et al. 2020. *Mannheimia haemolytica* and lipopolysaccharide induce airway epithelial inflammatory responses in an extensively developed *ex vivo* calf model. Sci. Rep. 10: 13042.
7. Zhu, P., et al. 2020. A novel cochlioquinone derivative, CoB1, regulates autophagy in *Pseudomonas aeruginosa* infection through the PAK1/Akt1/mTOR signaling pathway. J. Immunol. 205: 1293-1305.

RESEARCH USE

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

PROTOCOLS

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