SANTA CRUZ BIOTECHNOLOGY, INC.

TLR8 (9A6): sc-135584

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 NFκB signaling pathway, suggesting that they play a role in the immune response.

REFERENCES

1. Gay, N.J. and Keith, F.J. 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. and Ulevitch, R.J. 2000. Cloning and characterization of a subfamily of human Toll-like receptors: hTLR7, hTLR8, hTLR9. Eur. Cytokine Netw. 11: 372-378.

CHROMOSOMAL LOCATION

Genetic locus: TLR8 (human) mapping to Xp22.2.

SOURCE

TLR8 (9A6) is a mouse monoclonal antibody raised against recombinant TLR8 protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} 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.

PROTOCOLS

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

APPLICATIONS

TLR8 (9A6) is recommended for detection of TLR8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TLR8 siRNA (h): sc-40268, TLR8 shRNA Plasmid (h): sc-40268-SH and TLR8 shRNA (h) Lentiviral Particles: sc-40268-V.

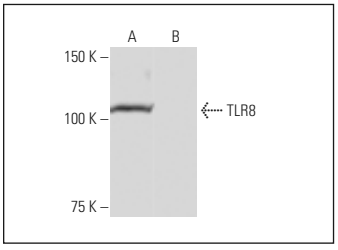
Molecular Weight of TLR8: 120 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, human TLR8 transfected 293T whole cell lysate or SW480 cell lysate: sc-2219.

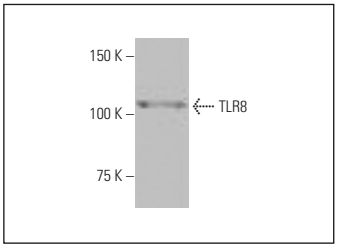
RECOMMENDED SUPPORT REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



TLR8 (9A6): sc-135584. Western blot analysis of TLR8 expression in human TLR8 transfected (**A**) and non-transfected (**B**) 293T whole cell lysates.



TLR8 (9A6): sc-135584. Western blot analysis of TLR8 expression in HL-60 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Galoian, K., et al. 2018. Toll like receptors TLR1/2, TLR6 and MUC5B as binding interaction partners with cytostatic proline rich polypeptide 1 in human chondrosarcoma. Int. J. Oncol. 52: 139-154.
2. Chong, H., et al. 2020. The PGC-1α/NRF1/miR-378a axis protects vascular smooth muscle cells from FFA-induced proliferation, migration and inflammation in atherosclerosis. Atherosclerosis 297: 136-145.
3. Matboli, M., et al. 2024. miRNAs: possible regulators of toll like receptors and inflammatory tumor microenvironment in colorectal cancer. BMC Cancer 24: 824.

RESEARCH USE

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