SANTA CRUZ BIOTECHNOLOGY, INC.

TLR10 (2A11): sc-293300

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. TLR's 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. TLR6 is highly homologous to TLR1, sharing greater that 65% sequence identity, and, like other members of TLR family, it induces NFκB signaling upon activation. TLR10 is also most closely related to TLR1 and TLR6, with 50% and 49% overall homology, respectively. TLR10 is predominantly expressed in tissues and cells involved in the immune response, including spleen, lymph node, thymus and tonsil.

REFERENCES

1. Medzhitov, R., et al. 1997. A human homologue of the *Drosophila* Toll protein signals activation of adaptive immunity. Nature 388: 394-397.
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. Gay, N.J., et al. 1991. *Drosophila* Toll and IL-1 receptor. Nature 351: 355-356.
4. Brightbill, H.D., et al. 1999. Host defense mechanisms triggered by microbial lipoproteins through Toll-like receptors. Science 285: 732-736.
5. Takeuchi, O., et al. 1999. TLR6: a novel member of an expanding Toll-like receptor family. Gene 231: 59-65.
6. Chuang T., et al. 2001. Identification of hTLR10: a novel human Toll-like receptor preferentially expressed in immune cells. Biochim. Biophys. Acta 1518: 157-161.

CHROMOSOMAL LOCATION

Genetic locus: TLR10 (human) mapping to 4p14.

SOURCE

TLR10 (2A11) is a mouse monoclonal antibody raised against amino acids 1-811 of TLR10 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 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

TLR10 (2A11) is recommended for detection of TLR10 of mouse, rat and 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 TLR10 siRNA (h): sc-40272, TLR10 shRNA Plasmid (h): sc-40272-SH and TLR10 shRNA (h) Lentiviral Particles: sc-40272-V.

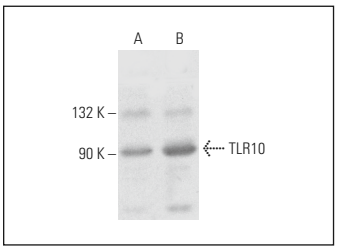
Molecular Weight of TLR10: 90 kDa.

Positive Controls: Daudi cell lysate: sc-2415, SP2/0 whole cell lysate: sc-364795 or NIH/3T3 whole cell lysate: sc-2210.

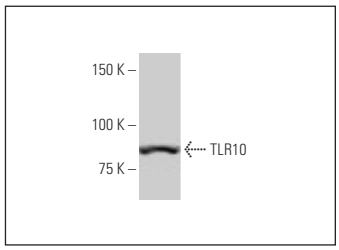
RECOMMENDED SUPPORT REAGENTS

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



TLR10 (2A11): sc-293300. Western blot analysis of TLR10 expression in Daudi (**A**) and SP2/0 (**B**) whole cell lysates.



TLR10 (2A11): sc-293300. Western blot analysis of TLR10 expression in NIH/3T3 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. Henrick, B.M., et al. 2019. TLR10 senses HIV-1 proteins and significantly enhances HIV-1 infection. Front. Immunol. 10: 482.

RESEARCH USE

For research use only, not for use in diagnostic procedures