

# 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. 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. TLR6 is highly homologous to TLR1, sharing greater than 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<sub>1</sub> 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](http://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.

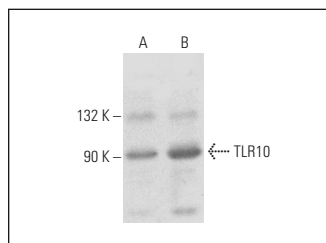
Molecular Weight of TLR10: 90 kDa.

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

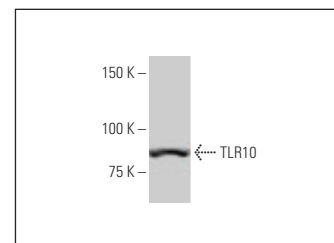
## RECOMMENDED SUPPORT REAGENTS

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 cytosolic 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