SANTA CRUZ BIOTECHNOLOGY, INC.

# TLR1 (H-90): sc-30000

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, is a type I transmembrane receptor that characteristically contains 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. Expression of TLR receptors is highest in peripheral blood leukocytes, macrophages and monocytes. 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.

## CHROMOSOMAL LOCATION

Genetic locus: TLR1 (human) mapping to 4p14; Tlr1 (mouse) mapping to 5 C3.1.

## SOURCE

TLR1 (H-90) is a rabbit polyclonal antibody raised against amino acids 161-250 mapping within an N-terminal extracellular domain of TLR1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG 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

TLR1 (H-90) is recommended for detection of TLR1 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TLR1 siRNA (h): sc-40254, TLR1 siRNA (m): sc-40255, TLR1 shRNA Plasmid (h): sc-40254-SH, TLR1 shRNA Plasmid (m): sc-40255-SH, TLR1 shRNA (h) Lentiviral Particles: sc-40254-V and TLR1 shRNA (m) Lentiviral Particles: sc-40255-V.

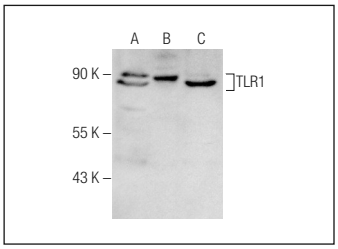
Molecular Weight of TLR1: 90 kDa.

Positive Control: Ramos whole cell lysate: sc-2216, RAW 264.7 whole cell lysate: sc-2211 and Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA




TLR1 (H-90): sc-30000. Western blot analysis of TLR1 expression in Ramos (**A**), RAW 264.7 (**B**) and Jurkat (**C**) whole cell lysates.

## SELECT PRODUCT CITATIONS


1. Yoshioka, M., et al. 2008. Human cathelicidin CAP-18/LL-37 changes mast cell function toward innate immunity. Biol. Pharm. Bull. 31: 212-216.
2. Peiser, M., et al. 2008. Human Langerhans cells selectively activated via Toll-like receptor 2 agonists acquire migratory and CD4+ T cell stimulatory capacity. J. Leukoc. Biol. 83: 1118-1127.
3. Wang, H., et al. 2009. Inflammation and taste disorders: mechanisms in taste buds. Ann. N.Y. Acad. Sci. 1170: 596-603.
4. Pajarinen, J., et al. 2010. Titanium particles modulate expression of Toll-like receptor proteins. J. Biomed. Mater. Res. A 92: 1528-1537.
5. Chen, G.Y., et al. 2014. Broad and direct interaction between TLR and Siglec families of pattern recognition receptors and its regulation by Neu1. Elife 3: e04066.


## RESEARCH USE

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