

TLR6 (H-90): sc-30001

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 lipopolysaccharide (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.

REFERENCES

1. Gay, N.J., et al. 1991. *Drosophila* Toll and IL-1 receptor. *Nature* 351: 355-356.
2. Medzhitov, R., et al. 1997. A human homologue of the *Drosophila* Toll protein signals activation of adaptive immunity. *Nature* 388: 394-397.

CHROMOSOMAL LOCATION

Genetic locus: TLR6 (human) mapping to 4p14; Tlr6 (mouse) mapping to 5 C3.1.

SOURCE

TLR6 (H-90) is a rabbit polyclonal antibody raised against amino acids 171-260 mapping within an N-terminal extracellular domain of TLR6 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.

APPLICATIONS

TLR6 (H-90) is recommended for detection of TLR6 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 TLR6 siRNA (h): sc-40264, TLR6 siRNA (m): sc-40265, TLR6 shRNA Plasmid (h): sc-40264-SH, TLR6 shRNA Plasmid (m): sc-40265-SH, TLR6 shRNA (h) Lentiviral Particles: sc-40264-V and TLR6 shRNA (m) Lentiviral Particles: sc-40265-V.

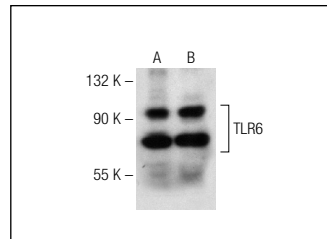
Molecular Weight of TLR6: 96 kDa.

Positive Controls: RAW 309 Cr.1 cell lysate: sc-3814, Jurkat whole cell lysate: sc-2204 or I-11.15 whole cell lysate: sc-364370.

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



TLR6 (H-90): sc-30001. Western blot analysis of TLR6 expression in RAW 309 Cr.1 (A) and Jurkat (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. 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.
2. Liu, Y., et al. 2009. Changes in intestinal Toll-like receptors and cytokines precede histological injury in a rat model of necrotizing enterocolitis. *Am. J. Physiol. Gastrointest. Liver Physiol.* 297: G442-G450.
3. Grote, K., et al. 2010. Toll-like receptor 2/6 stimulation promotes angiogenesis via GM-CSF as a potential strategy for immune defense and tissue regeneration. *Blood* 115: 2543-2552.
4. Ioannidis, I., et al. 2013. Toll-like receptor expression and induction of type I and type III interferons in primary airway epithelial cells. *J. Virol.* 87: 3261-3270.
5. Grote, K., et al. 2013. Toll-like receptor 2/6 agonist macrophage-activating lipopeptide-2 promotes reendothelialization and inhibits neointima formation after vascular injury. *Arterioscler. Thromb. Vasc. Biol.* 33: 2097-2104.

STORAGE

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

RESEARCH USE

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