

TLR3 (N-14): sc-8691

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. Expression of TLR receptors is highest in peripheral blood leukocytes, macrophages and monocytes. 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 NF κ B and suggests that these receptors are involved in mediating inflammatory responses. TLR3 is highly expressed in placenta and pancreas, and is limited to the dendritic subpopulation of leukocytes. TLR3 recognizes dsRNA associated with viral infection and induces activation of NF κ B and production of type I interferons, which suggests that it may play a role in host defense against viruses. TLR6 is highly homologous to TLR1, sharing greater than 65% sequence identity. Like other members of TLR family, TLR6 induces NF κ B signaling upon activation.

CHROMOSOMAL LOCATION

Genetic locus: TLR3 (human) mapping to 4q35.1; Tlr3 (mouse) mapping to 8 B2.

SOURCE

TLR3 (N-14) is available as either goat (sc-8691) or rabbit (sc-8691-R) polyclonal affinity purified antibody raised against a peptide mapping within an N-terminal extracellular domain of TLR3 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8691 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TLR3 (N-14) is recommended for detection of TLR3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 TLR3 siRNA (h): sc-36685, TLR3 siRNA (m): sc-40259, TLR3 shRNA Plasmid (h): sc-36685-SH, TLR3 shRNA Plasmid (m): sc-40259-SH, TLR3 shRNA (h) Lentiviral Particles: sc-36685-V and TLR3 shRNA (m) Lentiviral Particles: sc-40259-V.

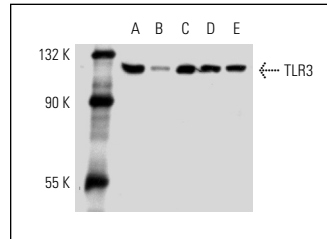
Molecular Weight of TLR3: 117 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, CCRF-CEM cell lysate: sc-2225 cell lysate: sc-2265 or NAMALWA cell lysate: sc-2234.

STORAGE

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

DATA



TLR3 (N-14): sc-8691. Western blot analysis of TLR3 expression in COLO 320DM (A), CCRF-HSB-2 (B), NAMALWA (C), CCRF-CEM (D) and HeLa (E) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Bsibsi, M., et al. 2002. Broad expression of Toll-like receptors in the human central nervous system. *J. Neuropathol. Exp. Neurol.* 61: 1013-1021.
2. Fazeli, A., et al. 2005. Characterization of Toll-like receptors in the female reproductive tract in humans. *Hum. Reprod.* 20: 1372-1378.
3. Guillot, L. 2005. Involvement of Toll-like receptor 3 in the immune response of lung epithelial cells to double-stranded RNA and influenza A Virus. *J. Biol. Chem.* 280: 5571-5580.
4. Gupta, S.M., et al. 2008. Toll-like receptors and cytokines as surrogate biomarkers for evaluating vaginal immune response following microbicide administration. *Mediators Inflamm.* 2008: E-Published.
5. Aboussahoud, W., et al. 2010. Expression and function of Toll-like receptors in human endometrial epithelial cell lines. *J. Reprod. Immunol.* 84: 41-51.
6. Crews, F.T., et al. 2013. High mobility group box 1/Toll-like receptor danger signaling increases brain neuroimmune activation in alcohol dependence. *Biol. Psychiatry.* 73: 602-612.
7. Seki, E., et al. 2013. Cytokine profiles, signalling pathways and effects of fluticasone propionate in respiratory syncytial virus-infected human foetal lung fibroblasts. *Cell Biol. Int.* E-Published.

RESEARCH USE

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


 MONOS
Satisfation
Guaranteed

Try **TLR3 (TLR3.7): sc-32232** or **TLR3 (40C1285): sc-52961**, our highly recommended monoclonal alternatives to TLR3 (N-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TLR3 (TLR3.7): sc-32232**.