

# TLR1 (B-23): sc-130896

## 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 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 the TLR family, it induces NFκB signaling upon activation.

## REFERENCES

1. Gay, N.J. and Keith, F.J. 1991. *Drosophila* toll and IL-1 receptor. Nature 351: 355-356.
2. Medzhitov, R., Preston-Hurlburt, P. and Janeway, C.A., Jr. 1997. A human homologue of the *Drosophila* toll protein signals activation of adaptive immunity. Nature 388: 394-397.
3. Rock, F.L., Hardiman, G., Timans, J.C., Kastelein, R.A. and Bazan, J.F. 1998. A family of human receptors structurally related to *Drosophila* toll. Proc. Natl. Acad. Sci. USA 95: 588-593.
4. Yang, R.B., Mark, M.R., Gray, A., Huang, A., Xie, M.H., Zhang, M., Goddard, A., Wood, W.I., Gurney, A.L. and Godowski, P.J. 1998. Toll-like receptor-2 mediates lipopolysaccharide-induced cellular signalling. Nature 395: 284-288.
5. Brightbill, H.D., Libraty, D.H., Krutzik, S.R., Yang, R.B., Belisle, J.T., Bleharski, J.R., Maitland, M., Norgard, M.V., Plevy, S.E., Smale, S.T., Brennan, P.J., Bloom, B.R., Godowski, P.J. and Modlin, R.L. 1999. Host defense mechanisms triggered by microbial lipoproteins through toll-like receptors. Science 285: 732-736.
6. Chow, J.C., Young, D.W., Golenbock, D.T., Christ, W.J. and Gusovsky, F. 1999. Toll-like receptor-4 mediates lipopolysaccharide-induced signal transduction. J. Biol. Chem. 274: 10689-10692.

## CHROMOSOMAL LOCATION

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

## SOURCE

TLR1 (B-23) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of TLR1 of mouse origin.

## RESEARCH USE

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

## PRODUCT

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

## APPLICATIONS

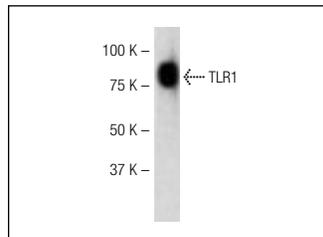
TLR1 (B-23) is recommended for detection of TLR1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

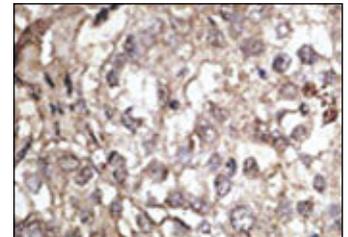
Molecular Weight of TLR1: 90 kDa.

Positive Controls: mouse spleen extract: sc-2391.

## DATA



TLR1 (B-23): sc-130896. Western blot analysis of TLR1 expression in mouse spleen tissue extract.



TLR1 (B-23): sc-130896. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human hepatocarcinoma tissue showing cytoplasmic localization.

## 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) or our catalog for detailed protocols and support products.

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Try **TLR1 (H-8): sc-514399**, our highly recommended monoclonal alternative to TLR1 (B-23).