

TLR2 (TL2.1): sc-21759

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 that consists 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. 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 NF κ B signaling upon activation.

CHROMOSOMAL LOCATION

Genetic locus: TLR2 (human) mapping to 4q31.3.

SOURCE

TLR2 (TL2.1) is a mouse monoclonal antibody raised against CHO-TLR2 cells of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TLR2 (TL2.1) is available conjugated to agarose (sc-21759 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-21759 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-21759 PE), fluorescein (sc-21759 FITC), Alexa Fluor[®] 488 (sc-21759 AF488), Alexa Fluor[®] 546 (sc-21759 AF546), Alexa Fluor[®] 594 (sc-21759 AF594) or Alexa Fluor[®] 647 (sc-21759 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-21759 AF680) or Alexa Fluor[®] 790 (sc-21759 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, TLR2 (TL2.1) is available conjugated to either PerCP (sc-21759 PerCP), PerCP-Cy5.5 (sc-21759 PCPC5) or Alexa Fluor[®] 405 (sc-21759 AF405), 100 tests in 2 ml, for IF, IHC(P) and FCM.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

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 for detailed protocols and support products.

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APPLICATIONS

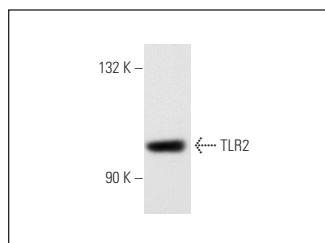
TLR2 (TL2.1) is recommended for detection of TLR2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for TLR2 siRNA (h): sc-40256, TLR2 shRNA Plasmid (h): sc-40256-SH and TLR2 shRNA (h) Lentiviral Particles: sc-40256-V.

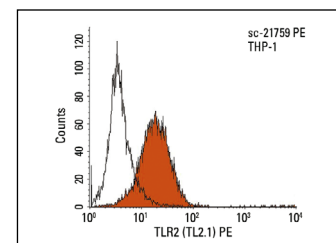
Molecular Weight of TLR2: 90-100 kDa.

Positive Controls: Caco-2 cell lysate: sc-2262, A549 cell lysate: sc-2413 or THP-1 cell lysate: sc-2238.

DATA



TLR2 (TL2.1): sc-21759. Western blot analysis of TLR2 expression in THP-1 whole cell lysate.



TLR2 (TL2.1) PE: sc-21759 PE. FCM analysis of THP-1 cells. Black line histogram represents the isotype control, normal mouse IgG_{2a}-PE: sc-2867.

SELECT PRODUCT CITATIONS

- Matsumoto, S., et al. 2005. Probiotic *Lactobacillus*-induced improvement in murine chronic inflammatory bowel disease is associated with the down-regulation of pro-inflammatory cytokines in lamina propria mononuclear cells. *Clin. Exp. Immunol.* 140: 417-426.
- Wladis, E.J., et al. 2012. Toll-like receptors in idiopathic orbital inflammation. *Ophthalmic Plast. Reconstr. Surg.* 28: 273-276.
- Haisma, E.M., et al. 2013. Inflammatory and antimicrobial responses to methicillin-resistant *Staphylococcus aureus* in an *in vitro* wound infection model. *PLoS ONE* 8: e82800.
- Rojas-Bernabé, A., et al. 2014. *Leishmania mexicana* lipophosphoglycan activates ERK and p38 MAP kinase and induces production of proinflammatory cytokines in human macrophages through TLR2 and TLR4. *Parasitology* 141: 788-800.
- Chen, J., et al. 2015. Activation of TLR2 and TLR6 by dengue NS1 protein and its implications in the immunopathogenesis of dengue virus infection. *PLoS Pathog.* 11: e1005053.
- Butoi, E., et al. 2016. Cross-talk between macrophages and smooth muscle cells impairs collagen and metalloprotease synthesis and promotes angiogenesis. *Biochim. Biophys. Acta* 1863: 1568-1578.

RESEARCH USE

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