SANTA CRUZ BIOTECHNOLOGY, INC.

TLR2 (N-17): sc-8689

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

CHROMOSOMAL LOCATION

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

SOURCE

TLR2 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TLR2 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.

Blocking peptide available for competition studies, sc-8689 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TLR2 (N-17) 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 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 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: TLR2 (h): 293T lysate: sc-115116, Caco-2 cell lysate: sc-2262n or A549 cell lysate: sc-2413.

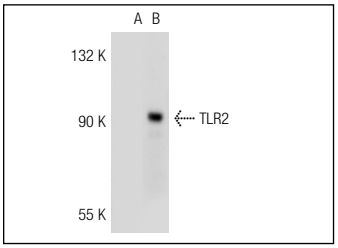
STORAGE

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.

DATA



TLR2 (N-17): sc-8689. Western blot analysis of TLR2 expression in non-transfected: sc-117752 (**A**) and human TLR2 transfected: sc-115116 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Frantz, S., et al. 2001. Role of TLR2 in the activation of NFκB by oxidative stress in cardiac myocytes. J. Biol. Chem. 276: 5197-5203.
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3. Holmlund, U., et al. 2007. The novel inflammatory cytokine high mobility group box protein 1 (HMGB1) is expressed by human term placenta. Immunology 122: 430-437.
4. Begon, E., et al. 2007. Expression, subcellular localization and cytokinic modulation of Toll-like receptors (TLRs) in normal human keratinocytes: TLR2 up-regulation in psoriatic skin. Eur. J. Dermatol. 17: 497-506.
5. Miettinen, M., et al. 2008. Live *Lactobacillus rhamnosus* and *Streptococcus pyogenes* differentially regulate Toll-like receptor (TLR) gene expression in human primary macrophages. J. Leukoc. Biol. 84: 1092-1100.
6. Szebeni, B., et al. 2008. Increased expression of Toll-like receptor (TLR) 2 and TLR4 in the colonic mucosa of children with inflammatory bowel disease. Clin. Exp. Immunol. 151: 34-41.
7. Aboussahoud, W., et al. 2010. Expression and function of Toll-like receptors in human endometrial epithelial cell lines. J. Reprod. Immunol. 84: 41-51.
8. Kim, G.T., et al. 2010. Expression of TLR2, TLR4, and TLR9 in dermatomyositis and polymyositis. Clin. Rheumatol. 29: 273-279.