

TLR5 (H-127): sc-10742

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 lipopolysacchride (LPS) stimulation, which results in the activation and translocation of NF κ B and suggests that these receptors are involved in mediating inflammatory responses. TLR5 specifically participates in the innate immune response to microbial agents. TLR5 is highly expressed in ovary and in peripheral blood leukocytes, most abundantly in monocytes and to a lesser extent in prostate and testis.

CHROMOSOMAL LOCATION

Genetic locus: TLR5 (human) mapping to 1q41; Tlr5 (mouse) mapping to 1 H5.

SOURCE

TLR5 (H-127) is a rabbit polyclonal antibody raised against amino acids 154-280 of TLR5 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TLR5 (H-127) is recommended for detection of TLR5 of human and, to a lesser extent, mouse and rat 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), 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 TLR5 siRNA (h): sc-40262, TLR5 shRNA Plasmid (h): sc-40262-SH and TLR5 shRNA (h) Lentiviral Particles: sc-40262-V.

Molecular Weight of TLR5: 110-120 kDa.

Positive Controls: THP-1 cell lysate: sc-2238 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.

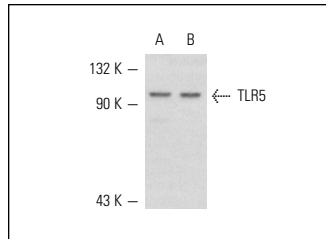
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

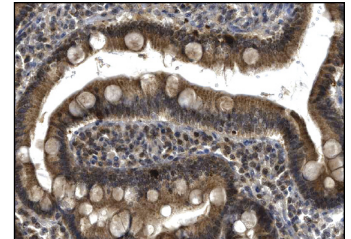
RESEARCH USE

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

DATA



TLR5 (H-127): sc-10742. Western blot analysis of TLR5 expression in THP-1 (A) and NAMALWA (B) whole cell lysates.



TLR5 (H-127): sc-10742. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing nuclear, cytoplasmic and membrane staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

- Gewirtz, A.T., et al. 2001. Cutting edge: bacterial flagellin activates basolaterally expressed Toll-like receptor 5 to induce epithelial pro-inflammatory gene expression. *J. Immunol.* 167: 1882-1885.
- Tallant, T., et al. 2004. Flagellin acting via TLR5 is the major activator of key signaling pathways leading to NF κ B and proinflammatory gene program activation in intestinal epithelial cells. *BMC Microbiol.* 33: 4-33.
- Cabral, E.S., et al. 2006. *Borrelia burgdorferi* lipoprotein-mediated TLR2 stimulation causes the down-regulation of TLR5 in human monocytes. *J. Infect. Dis.* 193: 846-859.
- Ortega-Cava, C.F., et al. 2006. Epithelial toll-like receptor 5 is constitutively localized in the mouse cecum and exhibits distinctive down-regulation during experimental colitis. *Clin. Vaccine Immunol.* 13: 132-138.
- Chabot, S., et al. 2006. TLRs regulate the gatekeeping functions of the intestinal follicle-associated epithelium. *J. Immunol.* 176: 4275-4283.
- Palazzo, M., et al. 2007. Activation of enteroendocrine cells via TLRs induces hormone, chemokine, and defensin secretion. *J. Immunol.* 178: 4296-4303.
- Lunardi, C., et al. 2009. Anti-flagellin antibodies recognize the autoantigens Toll-Like Receptor 5 and Pals 1-associated tight junction protein and induce monocytes activation and increased intestinal permeability in Crohn's disease. *J. Intern. Med.* 265: 250-265.
- Pajarinen, J., et al. 2010. Titanium particles modulate expression of Toll-like receptor proteins. *J. Biomed. Mater. Res. A* 92: 1528-1537.

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