

TLR8 (H-114): sc-25467

BACKGROUND

The toll-like receptors (TLR) are a family of human receptors that share homology with the *Drosophila* toll Receptors, which are involved in mediating dorsoventral polarization in developing *Drosophila* embryos and participate in host immunity. The TLR family members are characterized by a highly conserved toll homology (TH) domain, which is essential for toll-induced signal transductions. TLRs are type-I transmembrane receptors that contain an extracellular domain consisting of several leucine-rich regions and a single cytoplasmic toll/IL-1R like domain. Three TLR family members, TLR7, TLR8 and TLR9, belong to a subfamily of TLRs, which are differentially expressed. TLR7 is expressed in lung, placenta and spleen. TLR8 is expressed in lung and peripheral blood leukocytes, and TLR9 is predominantly expressed in spleen, lymph nodes, bone marrow and peripheral blood leukocytes. TLR7, TLR8 and TLR9 stimulate the NF κ B signaling pathway, suggesting that they play a role in the immune response.

CHROMOSOMAL LOCATION

Genetic locus: TLR8 (human) mapping to Xp22.2; Tlr8 (mouse) mapping to X F5.

SOURCE

TLR8 (H-114) is a rabbit polyclonal antibody raised against amino acids 27-140 of TLR8 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.

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.

APPLICATIONS

TLR8 (H-114) is recommended for detection of TLR8 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 TLR8 siRNA (h): sc-40268, TLR8 siRNA (m): sc-40269, TLR8 shRNA Plasmid (h): sc-40268-SH, TLR8 shRNA Plasmid (m): sc-40269-SH, TLR8 shRNA (h) Lentiviral Particles: sc-40268-V and TLR8 shRNA (m) Lentiviral Particles: sc-40269-V.

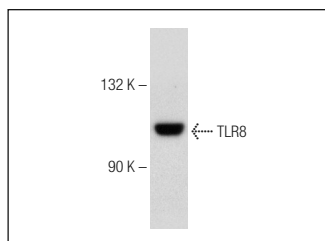
Molecular Weight of TLR8: 120 kDa.

Positive Controls: SW480 cell lysate: sc-2219.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TLR8 (H-114): sc-25467. Western blot analysis of TLR8 expression in SW480 whole cell lysate.

SELECT PRODUCT CITATIONS

- Ciferska, H., et al. 2008. Expression of nucleic acid binding toll-like receptors in control, lupus and transplanted kidneys—a preliminary pilot study. *Lupus* 17: 580-585.
- Steenholdt, C., et al. 2009. Expression and function of toll-like receptor 8 and Tollip in colonic epithelial cells from patients with inflammatory bowel disease. *Scand. J. Gastroenterol.* 44: 195-204.
- Pajarinen, J., et al. 2010. Titanium particles modulate expression of Toll-like receptor proteins. *J. Biomed. Mater. Res. A* 92: 1528-1537.
- Ioannidis, I., et al. 2013. Toll-like receptor expression and induction of type I and type III interferons in primary airway epithelial cells. *J. Virol.* 87: 3261-3270.
- Chamberlain, N.D., et al. 2013. Ligation of TLR7 by rheumatoid arthritis synovial fluid single strand RNA induces transcription of TNF α in monocytes. *Ann. Rheum. Dis.* 72: 418-426.
- Kim, S.J., et al. 2015. Identification of a novel TLR7 endogenous ligand in RA synovial fluid that can provoke arthritic joint inflammation. *Arthritis Rheumatol.* E-published.

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