SANTA CRUZ BIOTECHNOLOGY, INC.

TLR5 (H-11): sc-518106

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 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 NFkB 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.

REFERENCES

1. Gay, N.J., et al. 1991. *Drosophila* Toll and IL-1 receptor. Nature 351: 355-356.
2. Medzhitov, R., et al. 1997. A human homologue of the *Drosophila* Toll protein signals activation of adaptive immunity. Nature 388: 394-397.
3. Rock, F.L., et al. 1998. A family of human receptors structurally related to *Drosophila* Toll. Proc. Natl. Acad. Sci. USA 95: 588-593.
4. Yang, R.B., et al. 1998. Toll-like receptor-2 mediates lipopolysaccharide-induced cellular signalling. Nature 395: 284-288.

CHROMOSOMAL LOCATION

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

SOURCE

TLR5 (H-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 132-156 within an extracellular domain of TLR5 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TLR5 (H-11) is available conjugated to agarose (sc-518106 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518106 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518106 PE), fluorescein (sc-518106 FITC), Alexa Fluor® 488 (sc-518106 AF488), Alexa Fluor® 546 (sc-518106 AF546), Alexa Fluor® 594 (sc-518106 AF594) or Alexa Fluor® 647 (sc-518106 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518106 AF680) or Alexa Fluor® 790 (sc-518106 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

TLR5 (H-11) is recommended for detection of TLR5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 TLR5 siRNA (h): sc-40262, TLR5 siRNA (m): sc-40263, TLR5 shRNA Plasmid (h): sc-40262-SH, TLR5 shRNA Plasmid (m): sc-40263-SH, TLR5 shRNA (h) Lentiviral Particles: sc-40262-V and TLR5 shRNA (m) Lentiviral Particles: sc-40263-V.

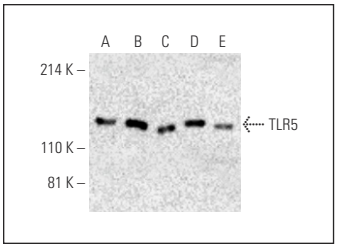
Molecular Weight of TLR5: 110-120 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, NAMALWA cell lysate: sc-2234 or FHs 173We cell lysate: sc-2417.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TLR5 (H-11): sc-518106. Western blot analysis of TLR5 expression in THP-1 (**A**), NAMALWA (**B**), FHs 173We (**C**), Ramos (**D**) and RAW 264.7 (**E**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM.

SELECT PRODUCT CITATIONS

1. Lv, X., et al. 2021. Flagellin maintains eosinophils in the intestine. Cytokine 150: 155769.
2. Luo, X.Q., et al. 2021. Flagellin alleviates airway allergic response by stabilizing eosinophils through modulating oxidative stress. J. Innate Immun. 13: 333-344.

RESEARCH USE

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