**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 lipopolysaccharide (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 TLR family, it induces NFκB signaling upon activation.

**CHROMOSOMIC LOCATION**

Genetic locus: TLR4 (human) mapping to 9q33.1; TLR4 (mouse) mapping to 4 C1.

**SOURCE**

TLR4 (25) is a mouse monoclonal antibody raised against amino acids 198-395 of TLR4 of mouse origin.

**PRODUCT**

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

TLR4 (25) is available conjugated to agarose (sc-293072 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-293072 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-293072 PE), fluorescein (sc-293072 FITC), Alexa Fluor® 488 (sc-293072 AF488), Alexa Fluor® 546 (sc-293072 AF546) or Alexa Fluor® 647 (sc-293072 AF647), 200 µg/ml, for IF, IHC(P) and FCM; and to either Alexa Fluor® 580 (sc-293072 AF580) or Alexa Fluor® 790 (sc-293072 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

TLR4 (25) is recommended for detection of TLR4 of mouse, rat, human and canine 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of glycosylated TLR4: 95/120 kDa.

**RESEARCH USE**

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

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**STORAGE**

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

**DATA**

TLR4 (25): sc-293072 Western blot analysis of TLR4 expression in PANC-1 (A), SK-N-MC (B), EOC 20 (C), WEHI-231 (D), SP2/0 (E) and LADMAC (F) whole cell lysates.

TLR4 (25): sc-293072 Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A) Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic and nuclear staining of trophoblastic cells (B).

**SELECT PRODUCT CITATIONS**


