

# TLR8 (D-8): sc-373760

## 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 $\kappa$ 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 (D-8) is a mouse monoclonal antibody raised against amino acids 27-140 of TLR8 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TLR8 (D-8) is available conjugated to agarose (sc-373760 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373760 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373760 PE), fluorescein (sc-373760 FITC), Alexa Fluor<sup>®</sup> 488 (sc-373760 AF488), Alexa Fluor<sup>®</sup> 546 (sc-373760 AF546), Alexa Fluor<sup>®</sup> 594 (sc-373760 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-373760 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-373760 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-373760 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

TLR8 (D-8) is recommended for detection of TLR8 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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.

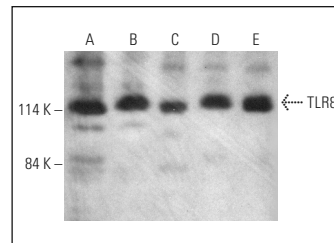
Molecular Weight of TLR8: 120 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, C6 whole cell lysate: sc-364373 or KNRK whole cell lysate: sc-2214.

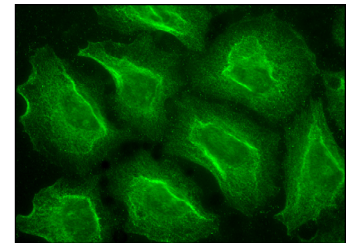
## RECOMMENDED SUPPORT REAGENTS

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

## DATA



TLR8 (D-8) HRP: sc-373760 HRP. Direct western blot analysis of TLR8 expression in THP-1 (A), MDA-MB-231 (B), RAW 264.7 (C), C6 (D) and KNRK (E) whole cell lysates.



TLR8 (D-8): sc-373760. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

## SELECT PRODUCT CITATIONS

- He, M., et al. 2016. The ORF3 protein of genotype 1 hepatitis E virus suppresses TLR3-induced NF $\kappa$ B signaling via TRADD and RIP1. *Sci. Rep.* 6: 27597.
- Dai, J.P., et al. 2017. Emodin inhibition of Influenza A Virus replication and influenza viral pneumonia via the Nrf2, TLR4, p38/JNK and NF $\kappa$ B pathways. *Molecules* 22: 1754.
- Dai, J., et al. 2018. Inhibition of curcumin on Influenza A Virus infection and influenzal pneumonia via oxidative stress, TLR2/4, p38/JNK MAPK and NF $\kappa$ B pathways. *Int. Immunopharmacol.* 54: 177-187.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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