



## TLR9 (h2): 293T Lysate: sc-178063

### 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.

### REFERENCES

1. Gay, N.J. and Keith, F.J. 1991. *Drosophila* Toll and IL-1 receptor. Nature 351: 355-356.
2. Rock, F.L., Hardiman, G., Timans, J.C., Kastelein, R.A. and Bazan, J.F. 1998. A family of human receptors structurally related to *Drosophila* Toll. Proc. Natl. Acad. Sci. USA 95: 588-593.
3. Brightbill, H.D., Libraty, D.H., Krutzik, S.R., Yang, R.B., Belisle, J.T., Bleharski, J.R., Maitland, M., Norgard, M.V., Plevy, S.E., Smale, S.T., Brennan, P.J., Bloom, B.R., Godowski, P.J. and Modlin, R.L. 1999. Host defense mechanisms triggered by microbial lipoproteins through Toll-like receptors. Science 285: 732-736.
4. Du, X., Poltorak, A., Wei, Y. and Beutler, B. 2000. Three novel mammalian Toll-like receptors: gene structure, expression, and evolution. Eur. Cytokine Netw. 11: 362-371.
5. Chuang, T.H. and Ulevitch, R.J. 2000. Cloning and characterization of a subfamily of human Toll-like receptors: hTLR7, hTLR8, hTLR9. Eur. Cytokine Netw. 11: 372-378.

### CHROMOSOMAL LOCATION

Genetic locus: TLR9 (human) mapping to 3p21.2.

### PRODUCT

TLR9 (h2): 293T Lysate represents a lysate of human TLR9 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

### APPLICATIONS

TLR9 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive TLR9 antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

### STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.