

Toll-like Receptor Antibody Sampler Kit II

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1 Kit (6 x 20 microliters)

For Research Use Only. Not for Use in Diagnostic Procedures.

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Toll-like Receptor 1 Antibody	2209	20 µl	86 kDa	Rabbit
Toll-like Receptor 2 (D7G9Z) Rabbit mAb	12276	20 µl	90-105 kDa	Rabbit IgG
Toll-like Receptor 3 (D10F10) Rabbit mAb	6961	20 µl	115-130 kDa	Rabbit IgG
Toll-like Receptor 6 (D1Z8B) Rabbit mAb	12717	20 µl	90-110 kDa	Rabbit IgG
Toll-like Receptor 7 (D7) Rabbit mAb	5632	20 µl	140 kDa	Rabbit IgG
Toll-like Receptor 8 (D3Z6J) Rabbit mAb	11886	20 µl	150 kDa	Rabbit IgG
Toll-like Receptor 9 (D9M9H) XP® Rabbit mAb	13674	20 µl	130 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Toll-like Receptor Antibody Sampler Kit II provides an economical means of detecting expression of various Toll-like receptors (TLRs). The kit contains enough primary and secondary antibodies to perform at least two western blot experiments.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

Background

Members of the Toll-like receptor (TLR) family, named for the closely related Toll receptor in *Drosophila*, play a pivotal role in innate immune responses (1-4). TLRs recognize conserved motifs found in various pathogens and mediate defense responses (5-7). TLR1, TLR2, TLR4, TLR5, TLR6, and TLR11 are localized to the plasma membrane, while TLR3, TLR7, TLR8, and TLR9 are localized to intracellular membranes including endosomal membranes. Triggering of the TLR pathway leads to the activation of NF-κB and subsequent regulation of immune and inflammatory genes (4). The TLRs and members of the IL-1 receptor family share a conserved stretch of approximately 200 amino acids known as the Toll/Interleukin-1 receptor (TIR) domain (1). Upon activation, TLRs associate with a number of cytoplasmic adaptor proteins containing TIR domains, including myeloid differentiation factor 88 (MyD88), MyD88-adaptor-like/TIR-associated protein (MAL/TIRAP), Toll-receptor-associated activator of interferon (TRIF), and Toll-receptor-associated molecule (TRAM) (8-10). This association leads to the recruitment and activation of IRAK1 and IRAK4, which form a complex with TRAF6 to activate TAK1 and IKK (8,11-14). Activation of IKK leads to the degradation of IκB, which normally maintains NF-κB in an inactive state by sequestering it in the cytoplasm. TLR1 and TLR6 associate with TLR2 to cooperatively mediate response to bacterial lipoproteins and fungal zymosan (6,15). TLR3 is an endosomal TLR that recognizes double-stranded RNA derived from viruses (7). TLR7 and TLR8 recognize single-stranded viral RNA and are also activated by synthetic imidazoquinoline compounds including R-848 (16,17). TLR9 recognizes unmethylated CpG motifs present on bacterial DNA (18).

Background References

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