

Mouse anti-TLR4, clone HTA125 (Monoclonal)

Clone no. HTA125

MONOSAN

Product name	Mouse anti-TLR4, clone HTA125 (Monoclonal)
Host	Mouse
Applications	FC, FUNC, ELISA, IF, IP, WB
Species reactivity	human, canine, monkey
Conjugate	-
Immunogen	Unknown or proprietary to MONOSAN and/or its suppliers
Isotype	IgG2a
Clonality	Monoclonal
Clone number	HTA125
Size	1 ml
Concentration	100 ug/ ml
Format	-
Storage buffer	PBS with 0.1% BSA and 0.02% sodium azide
Storage until expiry date	2-8°C

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

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Additional info

Toll-like receptors (TLRs) are highly conserved from *Drosophila* to humans and share structural and functional similarities. TLRs constitute of a family of pattern recognition receptors (PRRs) that mediate cellular responses to a large variety of pathogens (viruses, bacteria, and parasites) by specific recognition of so-called "pathogen-associated molecular patterns" (PAMPs). Activation of TLRs, a family of at least 11 different members that function either as homo- or heterodimers, leads to activation of NF- κ B-dependent and IFN-regulatory factor-dependent signaling pathways. TLRs have a central role in innate immunity and are also required for the development of an adaptive immune response. TLRs are expressed by various cells of the immune system, such as macrophages and dendritic cells. TLRs are class I receptors, with a single α -helix that spans the cell membrane. They recognize and respond to molecules derived from bacterial, viral and fungal pathogens, such as lipopolysaccharide (LPS) from the outer membrane of Gram negative bacteria, peptidoglycan fragments from bacterial cell walls and single-stranded and double-stranded RNA from viruses. Toll-like receptor 4 (TLR4; CD284) has been identified, next to MD-2 and CD14, as a receptor that is central to the innate immune response to LPS of Gram-negative bacteria. TLR4 is unique among TLRs in its ability to activate two distinct signaling pathways; one pathway is activated by the adaptors TIRAP (Toll/interleukin-1-receptor (TIR)-domain-containing adaptor protein) and MyD88, which leads to the induction of pro-inflammatory cytokines. The second pathway is activated by the adaptors TRIF (TIR-domaincontaining adaptor protein inducing interferon- α/β) and TRAM (TRIF-related adaptor molecule), which leads to the induction of type I interferons. The monoclonal antibody HTA125 is a TLR4 function-blocking antibody. HTA125 recognizes preferentially human TLR4 that is associated with MD-2.

References

1. Shimazu; R et al. J Exp Med 1999; 189: 1777
2. Tabeta, K et al Infect Immun 2000, 68: 3731
3. Akashi; S et al. Biochem Biophys Res Commun 2000; 268: 172
4. Wang J et al. Infect Immun 2001; 69: 2402
5. Walton K et al. J Biol Chem 2003; 278: 29661

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