

Mouse anti-TLR3, clone TLR3.7 (Monoclonal)

Clone no. TLR3.7

MONOSAN

Product name	Mouse anti-TLR3, clone TLR3.7 (Monoclonal)
Host	Mouse
Applications	IHC-fr,FC,FUNC,IF,IP,IHC-P
Species reactivity	human, canine, mouse
Conjugate	-
Immunogen	Unknown or proprietary to MONOSAN and/or its suppliers
Isotype	IgG1
Clonality	Monoclonal
Clone number	TLR3.7
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

The monoclonal antibody TLR3.7 recognizes the 116 kDa human Toll-like receptor 3 (TLR3, CD283). 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. Some forms of RNA and DNA from pathogens exhibit immutable features that distinguish them from nucleic acids of higher organisms. For example, dsRNA, is a common intermediate of viral replication and a potent indicator of infection. Toll-like receptor 3 (TLR3) recognizes viral double-stranded RNA and its synthetic analog polyriboinosinic:polyribocytidylic acid (poly(I:C)). TLR3 is normally located in acidic endosomes where its luminal ectodomain (ECD) encounters dsRNA and induces type I interferon (IFN), inflammatory cytokine/chemokine production and dendritic cell (DC) maturation via the adaptor protein TICAM-1 (also called TRIF). Based on the different subcellular localization of cytosolic RNA receptors and TLR3, these receptors seem to play distinct roles in anti-viral immune responses.

References

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2. Oshiumi, H et al *Nat Immunol* 2003, 4: 161
3. Matsumoto; M et al. *J Immunol* 2003; 171: 3154
4. Burgener I et al. *Vet Immunol Immunopathol* 2008; 124
5. Jorgenson R et al. *Human Immunology* 2005; 66: 469

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