Datasheet for ABIN2191972

anti-TLR3 antibody

6 Publications

Go to Product page

Overview

Quantity:	100 µg
Target:	TLR3
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This TLR3 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunofluorescence (IF), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Clone:	TLR3-7
Isotype:	IgG1
Cross-Reactivity (Details):	Cross reactivity: 4 Canine TLR3 : Yes, Mouse TLR3 : Yes
Sterility:	0.2 µm filtered

Target Details

Target:	TLR3
Alternative Name:	Toll-Like Receptor 3 (TLR3 Products)
Background:	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

Target Details

	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'. Activation of TLRs, a family of at least 11 different members that function either as homo- or heterodimers, leads to activation of NFκB- 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. Aliases CD283 Immunogen Human Flag-tagged TLR3 stably expressed by Ba/F3 cells
Pathways:	TLR Signaling, Activation of Innate immune Response, Hepatitis C, Toll-Like Receptors Cascades

Application Details

Application Notes:	For flow cytometry, dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50. For functional studies, in vitro dilutions have to be optimized in user's experimental setting. Positive Monocytes, granulocytes, lymphocytes, human fibroblast, MRC-5 & FS-4 cells control Negative HEK293 control
Restrictions:	For Research Use only

Handling

Buffer:	PBS, containing 0.1 % bovine serum albumin.

Handling

Storage:	4 °C
Storage Comment:	Product should be stored at 4 °C. Under recommended storage conditions, product is stable for at least one year. The exact expiry date is indicated on the label.

Publications

Product cited in:

Burgener, Jungi: "Antibodies specific for human or murine Toll-like receptors detect canine leukocytes by flow cytometry." in: **Veterinary immunology and immunopathology**, Vol. 124, Issue 1-2, pp. 184-91, (2008) (PubMed).

Schreiner, Voss, Wischhusen, Dombrowski, Steinle, Lochmüller, Dalakas, Melms, Wiendl: " Expression of toll-like receptors by human muscle cells in vitro and in vivo: TLR3 is highly expressed in inflammatory and HIV myopathies, mediates IL-8 release and up-regulation of NKG2D-ligands." in: **FASEB journal : official publication of the Federation of American Societies for Experimental Biology**, Vol. 20, Issue 1, pp. 118-20, (2006) (PubMed).

Jorgenson, Young, Lesmeister, Lyddon, Misfeldt: "Human endometrial epithelial cells cyclically express Toll-like receptor 3 (TLR3) and exhibit TLR3-dependent responses to dsRNA." in: **Human immunology**, Vol. 66, Issue 5, pp. 469-82, (2005) (PubMed).

Oshiumi, Matsumoto, Funami, Akazawa, Seya: "TICAM-1, an adaptor molecule that participates in Toll-like receptor 3-mediated interferon-beta induction." in: **Nature immunology**, Vol. 4, Issue 2, pp. 161-7, (2003) (PubMed).

Matsumoto, Funami, Tanabe, Oshiumi, Shingai, Seto, Yamamoto, Seya: "Subcellular localization of Toll-like receptor 3 in human dendritic cells." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 171, Issue 6, pp. 3154-62, (2003) (PubMed).

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