Human TLR1 PE-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: FAB1484P
100 Tests

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TLR1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 15% cross-reactivity with recombinant mouse (rm) TLR1 is observed and less than 5% cross-reactivity with recombinant human (rh) TLR3, rhTLR4, and rmTLR6 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TLR1 Ser22-Asn578 Accession # AAC34137
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

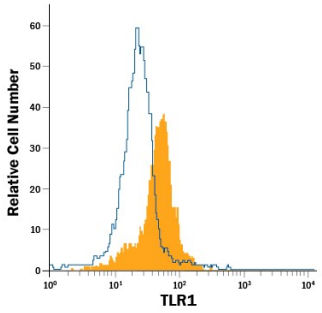
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of TLR1 in Human Monocytes by Flow Cytometry. Human monocytes were stained with Goat Anti-Human TLR1 PE-conjugated Antigen Affinity-purified Polyclonal Antibody (Catalog # FAB1484P, filled histogram) or isotype control antibody (Catalog # IC108P, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

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BACKGROUND

The Toll-like family of molecules are type I transmembrane proteins that serve as pattern recognition receptors for microbial pathogens. There are at least eleven mouse and ten human TLRs that activate the innate immune system following exposure to a variety of microbial species (1, 2). TLRs contain a large number of leucine-rich repeats (LRRs) and a cytoplasmic tail with one Toll/IL-1 receptor (TIR) domain. Mature human TLR1 consists of a 556 amino acid (aa) extracellular domain (ECD) with 20 LRRs, a 21 aa transmembrane segment, and a 185 aa cytoplasmic domain (3, 4). Within the ECD, human TLR1 shares 63% aa sequence identity with human TLR6 and 20%-43% aa sequence identitity with human TLR2, -3, -4, -5, -7, -8, -9, and -10. It shares 73% and 71% aa sequence identity with mouse and rat TLR1, respectively. TLR1 is expressed on the surface of macrophages, dendritic cells, and tonsillar epithelial cells in ligand-independent association with TLR2 (5-8). TLR2 additionally associates with TLR6 to form a functional complex with specificity for distinct but related microbial ligands (9-11). TLR1 and TLR2 cooperate in the recognition of bacterial and protozoal triacylated lipopeptides and glycosylphosphatidylinositols (6, 10-12). Ligand binding induces TLR1 localization to lipid rafts followed by receptor internalization and activation of NFκB (7, 11, 13).

References:

1. Miyake, K. (2007) Semin. Immunol. **19**:3.
2. Hopkins, P.A. and S. Sriskandan (2005) Clin. Exp. Immunol. **140**:395.
3. Rock, F.L. *et al.* (1998) Proc. Natl. Acad. Sci. **95**:588.
4. Matsushima, N. *et al.* (2007) BMC Genomics **8**:124.
5. Ochoa, M.-T. *et al.* (2003) Immunology **108**:10.
6. Takeuchi, O. *et al.* (2002) J. Immunol. **169**:10.
7. Triantafilou, M. *et al.* (2006) J. Biol. Chem. **281**:31002.
8. Sandor, F. *et al.* (2003) J. Cell Biol. **162**:1099.
9. Nakao, Y. *et al.* (2005) J. Immunol. **174**:1566.
10. Ozinsky, A. *et al.* (2000) Proc. Natl. Acad. Sci. **97**:13766.
11. Lee, J.Y. *et al.* (2004) J. Biol. Chem. **279**:16971.
12. Krishnegowda, G. *et al.* (2005) J. Biol. Chem. **280**:8606.
13. Nishiya, T. and A.L. DeFranco (2004) J. Biol. Chem. **279**:19008.

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