

## DESCRIPTION

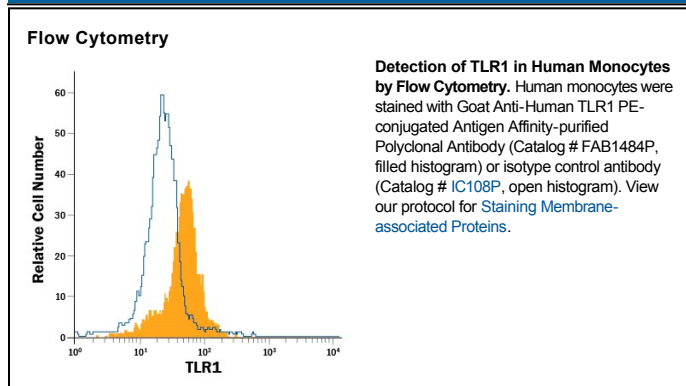
|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human  |
| <b>Specificity</b>        | Detects human TLR1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 15% cross-reactivity with recombinant mouse (rm) TLR1 is observed and less than 5% cross-reactivity with recombinant human (rh) TLR3, rhTLR4, and rmTLR6 is observed.   |
| <b>Source</b>             | Polyclonal Goat IgG  |
| <b>Purification</b>       | Antigen Affinity-purified  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human TLR1<br>Ser22-Asn578<br>Accession # AAC34137   |
| <b>Conjugate</b>          | Phycoerythrin<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 565-605 nm  |
| <b>Formulation</b>        | Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*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.

|                       | <b>Recommended Concentration</b> | <b>Sample</b> |
|-----------------------|----------------------------------|---------------|
| <b>Flow Cytometry</b> | 10 $\mu$ L/10 <sup>6</sup> cells | See Below     |

## DATA



## PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.                                    |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

**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 identity 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:**

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