

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse TLR6. Stains mouse TLR6 transfectants and not irrelevant transfectants.
Source	Monoclonal Rat IgG _{2A} Clone # 418601
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	HEK293 human embryonic kidney cell line transfected with mouse TLR6 Phe39-Thr806 Accession # BAA78632
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL 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	0.25-1 µg/10 ⁶ cells	RAW 264.7 mouse monocyte/macrophage cell line

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.

BACKGROUND

The Toll-like family of molecules are a group of integral membrane proteins that serve as pattern recognition receptors for microbial pathogens. There are at least eleven mouse and ten human members that activate the innate immune system following exposure to a variety of microbial species (1-4). All Toll-like receptors (TLRs) are type I transmembrane (TM) proteins that exist either in the plasma membrane or in the membranes of endosomal structures (where they bind intracellular microbial nucleic acids). All TLRs also contain a large number of extracellular leucine-rich repeats (LRRs) and a cytoplasmic tail with a Toll/IL-1 receptor (TIR) domain. The mouse TLR6 cDNA encodes a 795 amino acid (aa) precursor that includes a 27 aa signal sequence, a 557 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 190 aa cytoplasmic domain. The ECD contains 14 Leu-rich repeats, and the cytoplasmic region contains one TIR domain (5). Within the ECD, mouse TLR6 shares 59% aa sequence identity with mouse TLR1 and 20-27% aa sequence identity with mouse TLR2, -3, -4, -5, -7, -8, -9, -11, -12, and -13. It shares 71%, 72%, and 86% aa sequence identity with bovine, human, and rat TLR6, respectively. TLR6 is expressed on the cell surface of macrophages, monocytes, neutrophils, and dermal endothelial cells in ligand-independent association with TLR2 (6-9). TLR2 also associates with TLR1, a functional complex with specificity for distinct but related microbial ligands (6-8). TLR6 and TLR2 cooperate in the recognition of acylated bacterial and mycoplasma lipopeptides, peptidoglycan, and glycosylphosphatidylinositols (7-14). The cytoplasmic TIR domain is necessary and sufficient to initiate signal transduction which leads to activation of NFκB (7, 15).

References:

- Hopkins, P.A. and S. Sriskandan (2005) Clin. Exp. Immunol. **140**:395.
- Roeder, A. *et al.* (2004) Med. Mycol. **42**:485.
- Netea, M. *et al.* (2004) J. Leukoc. Biol. **75**:749.
- Wetzler, L.M. (2003) Vaccine **21**:S55.
- Takeuchi, O. *et al.* (1999) Gene **231**:59.
- Hajjar, A.M. *et al.* (2001) J. Immunol. **166**:15.
- Ozinsky, A. *et al.* (2000) Proc. Natl. Acad. Sci. USA **97**:13766.
- Lee, J.Y. *et al.* (2004) J. Biol. Chem. **279**:16971.
- Nakao, Y. *et al.* (2005) J. Immunol. **174**:1566.
- Bulut, Y. *et al.* (2001) J. Immunol. **167**:987.
- Takeuchi, O. *et al.* (2001) Int. Immunol. **13**:933.
- Morr, M. *et al.* (2002) Eur. J. Immunol. **32**:3337.
- Krishnegowda, G. *et al.* (2005) J. Biol. Chem. **280**:8606.
- Omuetti, K.O. *et al.* (2005) J. Biol. Chem. **280**:36616.
- Nishiya, T. and A.L. DeFranco (2004) J. Biol. Chem. **279**:19008.

Mouse TLR6 Alexa Fluor® 594-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 418601

Catalog Number: FAB1533T
100 µg

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.