Mouse TLR6 Alexa Fluor® 647-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 418601

Catalog Number: FAB1533R

100 µg

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 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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 identitity 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).

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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

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USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449