

AM26199BT-N**Monoclonal Antibody to TLR2 - Biotin**

Quantity:	50 µg
Concentration:	0.1 mg/ml
Background:	<p>Toll-like receptors (TLR) are highly conserved throughout evolution and are implicated in the innate defense to many pathogens. Mammalian TLRs have been identified as type I transmembrane signaling receptors with pattern recognition capabilities. TLRs recognize pathogen-associated molecular patterns (PAMPs), expressed on infectious agents, and mediate the production of cytokines necessary for the development of effective immunity. The various TLRs exhibit different patterns of expression. Among TLRs, TLR2 is a unique receptor recognizing lipoproteins of Gram-negative bacteria, several whole Gram-positive bacteria, as well as peptidoglycan, lipoteichoic acid and other bacterial cell membrane products. A functional interaction between TLR2 and TLR6 in the cellular response to various bacterial products has been discovered. Bacterial species as diverse as mycobacteria, spirochetes, mycoplasma, Staphylococcus aureus, and Streptococcus pneumoniae have all been shown to mediate cellular activation via TLR2 (CD282).</p> <p>TLR2 is highly expressed in peripheral blood leukocytes, in particular in monocytes, in bone marrow, lymph node and in spleen. Furthermore, TLR2 is detected in lung and fetal liver. In other tissues TLR2 levels are low.</p>
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10B (for use in human samples)
Clone:	TLR2.45
Immunogen:	Ba/F3 cells which stably express human Flag-tagged TLR2
Format:	State: Liquid 0.2 µm filtered Ig fraction Purification: Protein G Buffer System: PBS Preservatives: 0.02% sodium azide Stabilizers: 0.1% bovine serum albumin Label: Biotin
Applications:	Flow cytometry: Typical starting working dilution is 1:50. Immunofluorescence: Typical starting working dilution is 1:50. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognizes human TLR2 (CD282).
Species Reactivity:	Tested: Human
Storage:	Store at 2 - 8 °C. Shelf life: one year from despatch.

General Readings:

1. Nakao Y, Funami K, Kikkawa S, Taniguchi M, Nishiguchi M, Fukumori Y, et al. Surface-expressed TLR6 participates in the recognition of diacylated lipopeptide and peptidoglycan in human cells. *J Immunol*. 2005 Feb 1;174(3):1566-73. PubMed PMID: 15661917.
2. Uehori J, Fukase K, Akazawa T, Uematsu S, Akira S, Funami K, et al. Dendritic cell maturation induced by muramyl dipeptide (MDP) derivatives: monoacylated MDP confers TLR2/TLR4 activation. *J Immunol*. 2005 Jun 1;174(11):7096-103. PubMed PMID: 15905553.
3. Funami K, Matsumoto M, Oshiumi H, Akazawa T, Yamamoto A, Seya T. The cytoplasmic 'linker region' in Toll-like receptor 3 controls receptor localization and signaling. *Int Immunol*. 2004 Aug;16(8):1143-54. Epub 2004 Jun 28. PubMed PMID: 15226270.
4. Matsumoto M, Funami K, Tanabe M, Oshiumi H, Shingai M, Seto Y, et al. Subcellular localization of Toll-like receptor 3 in human dendritic cells. *J Immunol*. 2003 Sep 15;171(6):3154-62. PubMed PMID: 12960343.
5. Uehori J, Matsumoto M, Tsuji S, Akazawa T, Takeuchi O, Akira S, et al. Simultaneous blocking of human Toll-like receptors 2 and 4 suppresses myeloid dendritic cell activation induced by *Mycobacterium bovis* bacillus Calmette-Guérin peptidoglycan. *Infect Immun*. 2003 Aug;71(8):4238-49. PubMed PMID: 12874299.