

# BIOTINYLATED MONOCLONAL ANTIBODY TO HUMAN TOLL-LIKE RECEPTOR 2 (TLR2, CD282) clone TL2.1



<b>Catalog nr</b>	HM2065 (lot number and expiry date are indicated on the label)
<b>Description</b>	<p>Toll-like receptors (TLR) are highly conserved throughout evolution and have been implicated in the innate defense to many pathogens. In <i>Drosophila</i> toll is required for the anti-fungal response, while the related 18-wheeler is involved in antibacterial defenses. In mammals, TLR identified as type I transmembrane signaling receptors with pattern recognition capabilities, have been implicated in the innate host defense to pathogens. TLR2 has been identified as a receptor that is central to the innate immune response to lipoproteins of Gram-negative bacteria, several whole Gram-positive bacteria, as well as a receptor for peptidoglycan and 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. The currently accepted paradigm regards TLR2 as an essential receptor for many eubacterial cell wall components, including lipoproteins and peptidoglycan. Bacterial species as diverse as mycobacteria, spirochetes, mycoplasma, <i>Staphylococcus aureus</i>, and <i>Streptococcus pneumoniae</i> have all been shown to mediate cellular activation via TLR2 (CD282).</p> <p>The TL2.1 monoclonal antibody is specific for human Toll-like receptor 2 (TLR2, CD282). TL2.1 is a TLR2 function blocking antibody that is useful for studies on the role of TLR2 as a pattern recognition receptor in microbial products induced cytokine production by TLR2 bearing cells such as human peripheral blood mononuclear cells. The antibody can be used for immunoprecipitation of human TLR2 (approximately 90 kDa). The antibody is cross reactive with canine, cynomolgus monkey, rhesus monkey and marmoset monkey.</p>
<b>Species</b>	Mouse IgG <sub>2a</sub>
<b>Formulation</b>	0.5 ml (100 µg/ml) 0.2 µm filtered biotinylated antibody solution in PBS, containing 0.02% sodium azide and 0.1% bovine serum albumin.
<b>Application</b>	The monoclonal antibody TL2.1 can be used for flow cytometry, immunohistology on frozen sections and paraffin sections, Western blotting and immuno assays.
<b>Use</b>	For immunohistology, flow cytometry and Western blotting dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.
<b>Storage and stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.
<b>Precautions</b>	<p>For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and Federal rules in the use of this product. The human Toll-like receptor 2 (TLR2) is Patent protected by US Patent no. US 7,071,310. License rights on the Patent are acquired from Leiv Eriksson Nukaping AS, Norway.</p> <p>Hycult Biotech is not responsible for any patent infringements that might result with the use of or derivation of this product.</p>
<b>References</b>	<ol style="list-style-type: none"><li>1. Lien, E et al; Toll-like receptor 2 functions as a pattern recognition receptor for diverse bacterial products. <i>J Biol Chem</i> 1999, <i>274</i>: 33419</li><li>2. Flo, TH et al; Differential expression of Toll-like receptor 2 in human cells. <i>J Leukoc Biol</i> 2001, <i>69</i>: 474</li><li>3. Lien, E et al; A novel synthetic acyclic lipid A-like agonist activates cells via the lipopolysaccharide/toll-like receptor 4 signaling pathway. <i>Biol Chem</i> 2001, <i>276</i>: 1873</li><li>4. Flo, TH et al; Human toll-like receptor 2 mediates monocyte activation by <i>Listeria monocytogenes</i>, but not by group B streptococci or lipopolysaccharide. <i>J Immunol</i> 2000, <i>164</i>: 2064</li><li>5. Faure, E et al; Bacterial lipopolysaccharide and IFN-gamma induce Toll-like receptor 2 and Toll-like receptor 4 expression in human endothelial cells: role of NF-kappa B activation. <i>J Immunol</i> 2001, <i>166</i>: 2018</li><li>6. Wang, JE et al; Involvement of CD14 and toll-like receptors in activation of human monocytes by <i>Aspergillus fumigatus</i> hyphae. <i>Infect Immun</i> 2001, <i>69</i>: 2402</li><li>7. Burgener, I et al; Antibodies specific for human or murine Toll-like receptors detect canine leukocytes by flow cytometry. <i>Vet Immunol Immunopathol</i> 2008, <i>124</i>: 184</li></ol>

**Also available**

HM2064	Monoclonal antibody against Human TLR2 (CD282), clone TL2.1
HM2066	Monoclonal antibody against Human TLR2 (CD282), clone TL2.3
HM2067	Biotinylated monoclonal antibody against Human TLR2 (CD282), clone TL2.3
HM2068	Monoclonal antibody against Human TLR4 (CD284), clone HTA125
HM2085	Monoclonal antibody against Human TLR1 (CD281), clone GD2.F4

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