

**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	TLR2, Human, clone TLR2.45	<b>Expiry date</b>	-
<b>Catalog number</b>	HM2220		
<b>Lot number</b>	-	<b>Amount</b>	100 µg
<b>Volume</b>	1 ml	<b>Concentration</b>	100 µg/ml
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA	<b>Conjugate</b>	None
<b>Host Species</b>	Mouse IgG1	<b>Purification</b>	Protein G
<b>Endotoxin</b>	<24 EU/mg		
<b>Storage</b>	4°C		

**Application notes**

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes			•	•	•		•	
No								
N.D.	•	•				•		•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

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.

- FS: the monoclonal antibody TLR2.45 is useful for inhibition of biological activity. For neutralization of biological activity *in vitro* dilutions have to be made according to the amounts of TLR2 to be inactivated.

**General Information**

**Description** The monoclonal antibody TLR2.45 recognizes human TLR2 (CD282). 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). 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. The TLR2.45 monoclonal antibody is generated using Ba/F3 cells which stably express human Flag-tagged TLR2.

**Aliases** Toll-like receptor 2, CD282, TIL4

- References**
1. Nakao, Y et al; Surface-expressed TLR6 participates in the recognition of diacylated lipopeptide and peptidoglycan in human cells. J Immunol 2005, 174: 1566.
  2. Uehori, J et al; Dendritic cell maturation induced by muramyl dipeptide (MDP) derivatives: Monoacylated MDP confers TLR2/TLR4 activation. J Immunol 2005, 174: 7096.
  3. Funami, K et al; The cytoplasmic 'linker region' in Toll-like receptor 3 controls receptor localization and signaling. Int Immunol 2004, 16: 1143.
  4. Matsumoto, M et al; Subcellular localization of Toll-like receptor 3 in human dendritic cells. J Immunol 2003, 171: 3154.
  5. Uehori, J 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, 71: 4238.

**Storage&stability** Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

**Precautions**

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. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC  
Robbert Zwinkels

Date  
19/03/2018

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).