CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	TLR4, Human, clone 4D9		
Catalog number	HM2298		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**Concentration**	100 µg/ml
Host Species	Mouse IgG1	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #				1		1	1	1
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.

- FC: Antibody 4D9 stains the extracellular domain of sTLR4. The THP1 (monocyte celline) cells were used for staining.
- W: A reduced sample treatment and SDS-Page was used. The band size is 80kDa (Ref.1).

General Information

Description

The monoclonal antibody 4D9 reacts with the Toll-like receptor 4 (TLR4, CD284). TLRs are expressed by various cells of the immune system, such as macrophages and dendritic cells. TLRs are class I receptors, with a single α-helix that spans the cell membrane. They recognize and respond to molecules derived from bacterial, viral and fungal pathogens, such as lipopolysaccharide (LPS) from the outer membrane of Gram negative bacteria, peptidoglycan fragments from bacterial cell walls and single-stranded and double-stranded RNA from viruses.Toll-like receptor 4 has been identified, next to MD-2 and CD14, as a receptor that is central to the innate immune response to LPS of Gram-negative bacteria. The extracellular TLR4 domain alone cannot bind to LPS, only the TLR4-MD-2 complex is capable of binding LPS. TLR4 is unique among TLRs in its ability to activate two distinct signaling pathways; one pathway is activated by the adaptors TIRAP (Toll/interleukin-1- receptor (TIR)-domain-containing adaptor protein) and MyD88, which leads to the induction of pro inflammatory cytokines. The second pathway is activated by the adaptors TRIF (TIR-domaincontaining adaptor protein inducing interferon β) and TRAM (TRIFrelated adaptor molecule), which leads to the induction of type I interferons. The monoclonal antibody 4D9 reacts with the extracellular part of the receptor. A few studies report the existing of soluble TLR4. This antibody should be able to recognize this protein.

Immunogen

Recombinant sTLR4.

Aliases

Toll-like receptor 4, TLR4, CD284, ARMD10.

References

1. Hyakushima, N et al. Interaction of soluble form of recombinant extracellular TLR4 domain with MD-2 enables lipopolysaccharide binding and attenuates TLR4-mediated signaling. J Immunol. 2004, *173*: 6949.

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.

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
16/03/2018

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.