

Product Information

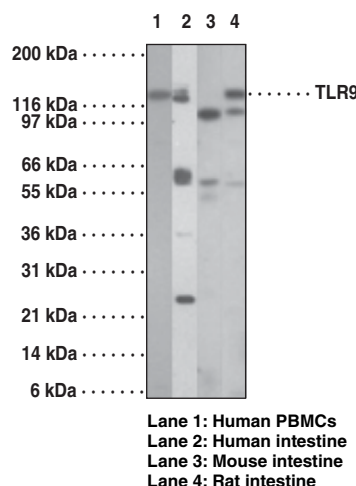


Toll-Like Receptor 9 Monoclonal Antibody (Clone 26C593.2)

Item No. 13593

Contents:	This vial contains 100 µg of protein G-purified IgG in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide.
Synonym:	TLR9
Antigen:	Synthetic peptide from human TLR9 amino acids 268-284
Isotype:	IgG _{1κ}
Host:	Mouse
Cross Reactivity:	(+) Canine, equine, human, mouse, rat, and Rhesus monkey TLR9
Storage:	≤6 months at 4°C; ≥6 months at -20°C
Applications:	Western blot (WB), flow cytometry (FC) (intracellular and cell surface), immunohistochemistry (IHC) (frozen and paraffin-embedded sections), and immunocytochemistry (ICC). The recommended starting dilution for WB is 1-5 µg/ml, FC (intracellular) is 0.1-2 µg/1x10 ⁶ cells, and IHC (frozen sections) is 10-20 µg/ml.

The toll-like receptors (TLRs) in mammals comprise a family of transmembrane proteins characterized by multiple copies of leucine rich repeats in the extracellular domain and an interleukin-1 (IL-1) receptor motif in the cytoplasmic domain. Like their counterparts in *Drosophila*, TLRs signal through adaptor molecules.¹ The TLR family is a phylogenetically conserved mediator of innate immunity that is essential for microbial recognition.² Most mammalian species have between ten and fifteen types of TLRs. Ten functional TLRs (TLR1-10) have been identified in human. Humans also encode a TLR11 gene but it contains several stop codons and protein is not expressed. However, mouse and rat TLR11 are functional, and it is thought that human TLR11 function was lost during evolution. Historically speaking, TLR expression has been most extensively studied in the immune system. Overall, TLRs are highly expressed in immune competent cells, including macrophages, dendritic cells, neutrophils, mucosal epithelial cells and dermal endothelial cells. However, TLRs have also been identified in many other cell types and anatomical tissue locations where they are expressed either constitutively or induced during infection. Gene knockout experiments suggest that TLR9 acts as a receptor for unmethylated CpG dinucleotides in bacterial DNA.³ Human and mouse TLR9 share an overall amino acid identity of 75.5%. TLR9 is highly expressed in spleen.



References

1. Srivastava, M.D., Srivastava, B.I.S. *Leukemia Research* **29**(7), 813-820 (2005).
2. Gibson, F.C., Hong, C., Chou, H.-H., *et al.* *Circulation* **109**, 2801-2806 (2004).
3. Hemmi, H., Takeuchi, O., Kawai, T., *et al.* *Nature* **408**, 740-745 (2000).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/13593

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees. Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

Copyright Cayman Chemical Company, 02/06/2012