

# CD289 (TLR9) Monoclonal Antibody (M9.D6), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	M9.D6
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_468573

Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-Dependent	1 Publication
Flow Cytometry (Flow)	1 µg/test	6 Publications
Miscellaneous PubMed (Misc)	-	1 Publication

## Product Specific Information

**Description:** M9.D6 is generated against a peptide derived from the extracellular portion of mouse TLR9. Predominantly expressed as an intracellular protein, TLR9 is a ~115-120 kDa molecule which mediates response to unmethylated CpG dinucleotides in bacterial DNA. CpG DNA induces a strong T-helper-1-like inflammatory response and the proliferation of TLR9+ B cells. When stimulated with CpG DNA, TLR9-deficient (TLR9<sup>-/-</sup>) mice lacked splenocyte proliferation, inflammatory cytokine production from macrophages, and dendritic cell maturation, as compared with normal mice. To date, at least ten members of the Toll family have been identified. This family of type I transmembrane proteins is characterized by an extracellular domain with leucine-rich repeats and a cytoplasmic domain with homology to the type I IL-1 receptor. Members of the TLR family are involved in recognition and response to different microbial components including lipoproteins, peptidoglycans, and nucleic acids and play important roles in innate immunity and inflammation. TLR9 is not detected by flow cytometry using this antibody on RBC-lysed mouse splenocytes stained for intracellular TLR9. This may be due to limitations of antigen detection by flow cytometry. Further studies are needed to determine the relationship between mRNA expression and protein detection.

**Applications Reported:** This M9.D6 antibody has been reported for use in intracellular flow cytometric analysis, and immunoblotting (WB). (Fluorochrome conjugated M9.D6 is recommended for use in intracellular flow cytometry.).

**Applications Tested:** The M9.D6 antibody has been tested by intracellular flow cytometric analysis of fixed and permeabilized mouse TLR9 transfected cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

**Purity:** Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

8 References

Western Blot (1)

<p><b>Journal of immunology (Baltimore, Md. : 1950)</b></p> <p><b>Histones activate the NLRP3 inflammasome in Kupffer cells during sterile inflammatory liver injury.</b></p> <p>"14-9093 was used in Western Blotting to investigate the cellular processes that drive sterile inflammatory injury after hepatic ischaemia/reperfusion injury."</p> <p>Authors: Huang H,Chen HW,Evankovich J,Yan W,Rosborough BR,Nace GW,Ding Q,Loughran P,Beer-Stolz D,Billiar TR,Esmon CT,Tsung A</p>	<p><b>Year</b> 2013</p> <p><b>Species</b> Mouse</p> <p><b>Dilution</b> 1:1000</p>
--	---

Flow Cytometry (6)

<p><b>PloS one</b></p> <p><b>Microglia Induce Neurotoxic IL-17+ T Cells Dependent on TLR2, TLR4, and TLR9 Activation.</b></p> <p>"14-9093 was used in Flow cytometry/Cell sorting to investigate the crosstalk between T cells and microglia activated by Toll-like receptors in the context of neuronal damage."</p> <p>Authors: Derkow K,Krüger C,Dembny P,Lehnardt S</p>	<p><b>Year</b> 2016</p> <p><b>Species</b> Mouse</p>
<p><b>Frontiers in immunology</b></p> <p><b>Single-Dose CpG Immunization Protects Against a Heterosubtypic Challenge and Generates Antigen-Specific Memory T Cells.</b></p> <p>"Published figure using CD289 (TLR9) monoclonal antibody (Product # 14-9093-82) in Flow Cytometry"</p> <p>Authors: Vogel AJ,Brown DM</p>	<p><b>Year</b> 2015</p>

View more Flow references on thermofisher.com

Miscellaneous PubMed (1)

<p><b>Journal of immunology (Baltimore, Md. : 1950)</b></p> <p><b>Histones activate the NLRP3 inflammasome in Kupffer cells during sterile inflammatory liver injury.</b></p> <p>"14-9093 was used in Western Blotting to investigate the cellular processes that drive sterile inflammatory injury after hepatic ischaemia/reperfusion injury."</p> <p>Authors: Huang H,Chen HW,Evankovich J,Yan W,Rosborough BR,Nace GW,Ding Q,Loughran P,Beer-Stolz D,Billiar TR,Esmon CT,Tsung A</p>	<p><b>Year</b> 2013</p> <p><b>Species</b> Mouse</p> <p><b>Dilution</b> 1:1000</p>
--	---

More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.