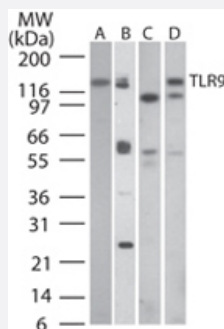


# TLR9 monoclonal antibody, clone 26C593.2

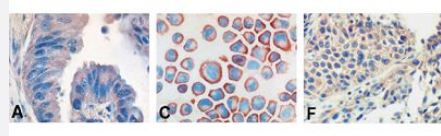
Catalog # MAB0087      Size 100 ug

## Applications



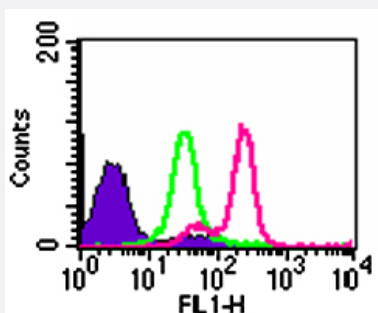
### Western Blot

Western blot analysis of TLR9 in A) human PBMC, B) human intestine, C) mouse intestine and D) rat intestine tissue lysates using TLR9 monoclonal antibody, clone 26C593.2 (Cat # MAB0087) at 3 ug/mL .



### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

IHC analysis of TLR9 monoclonal antibody, clone 26C593.2 (Cat # MAB0087) in adenocarcinoma of the lung (A) , A-549 cells (C) , and malignant lung tissues (F) at 1 : 100 dilution.



### Flow Cytometry

Flow cytometric analysis of TLR9 in Ramos cells. Using 0.1 ug of TLR9 monoclonal antibody, clone 26C593.2 (Cat # MAB0087). Shaded histogram represents Ramos cells without antibody; Green represents isotype control ; red represents anti-TLR9 antibody.

## Specification

### Product Description

Mouse monoclonal antibody raised against synthetic peptide of TLR9.

|                            |                                                                                                                                                                                                                                                                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen</b>           | A synthetic peptide (conjugated with KLH) corresponding to amino acids 268-300 of human TLR9 is of form A.                                                                                                                                                                                                                            |
| <b>Host</b>                | Mouse                                                                                                                                                                                                                                                                                                                                 |
| <b>Reactivity</b>          | Human, Monkey, Mouse, Rat                                                                                                                                                                                                                                                                                                             |
| <b>Form</b>                | Liquid                                                                                                                                                                                                                                                                                                                                |
| <b>Purification</b>        | Protein G purification                                                                                                                                                                                                                                                                                                                |
| <b>Isotype</b>             | IgG1, kappa                                                                                                                                                                                                                                                                                                                           |
| <b>Recommend Usage</b>     | ELISA (1:100-1:2000)<br>Flow Cytometry<br>Immunocytochemistry (1:10-1:500)<br>Immunofluorescence (1:10-1:500)<br>Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) (5 ug/mL)<br>Immunoprecipitation (1:10-1:500)<br>Western Blot (2-5 ug/mL)<br>The optimal working dilution should be determined by the end user. |
| <b>Storage Buffer</b>      | In PBS (0.05% sodium azide).                                                                                                                                                                                                                                                                                                          |
| <b>Storage Instruction</b> | Store at 4°C for short term. For long term storage store at -20°C.<br>Aliquot to avoid repeated freezing and thawing.                                                                                                                                                                                                                 |
| <b>Note</b>                | This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.                                                                                                                                                                                                                |

## Applications

- Western Blot

Western blot analysis of TLR9 in A) human PBMC, B) human intestine, C) mouse intestine and D) rat intestine tissue lysates using TLR9 monoclonal antibody, clone 26C593.2 (Cat # MAB0087) at 3 ug/mL .

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

IHC analysis of TLR9 monoclonal antibody, clone 26C593.2 (Cat # MAB0087) in adenocarcinoma of the lung (A) , A-549 cells (C) , and malignant lung tissues (F) at 1 : 100 dilution.

- Immunohistochemistry

- Immunocytochemistry

- Immunofluorescence

- Immunoprecipitation
- Enzyme-linked Immunoabsorbent Assay
- Flow Cytometry

Flow cytometric analysis of TLR9 in Ramos cells. Using 0.1 ug of TLR9 monoclonal antibody, clone 26C593.2 (Cat # MAB0087). Shaded histogram represents Ramos cells without antibody; Green represents isotype control ; red represents anti-TLR9 antibody.

## Gene Info — TLR9

**Entrez GeneID** [54106](#)

**Protein Accession#** [AAF78037; Q9NR96](#)

**Gene Name** TLR9

**Gene Alias** CD289

**Gene Description** toll-like receptor 9

**Omim ID** [605474](#)

**Gene Ontology** [Hyperlink](#)

**Gene Summary** The protein encoded by this gene is a member of the Toll-like receptor (TLR) family which plays a fundamental role in pathogen recognition and activation of innate immunity. TLRs are highly conserved from Drosophila to humans and share structural and functional similarities. They recognize pathogen-associated molecular patterns (PAMPs) that are 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. This gene is preferentially expressed in immune cell rich tissues, such as spleen, lymph node, bone marrow and peripheral blood leukocytes. Studies in mice and human indicate that this receptor mediates cellular response to unmethylated CpG dinucleotides in bacterial DNA to mount an innate immune response. [provided by RefSeq]

**Other Designations** -

## Publication Reference

- [Igβ ubiquitination activates PI3K signals required for endosomal sorting.](#)

Veselits M, Tanaka A, Chen Y, Hamel K, Mandal M, Kandasamy M, Manicassamy B, O'Neill SK, Wilson P, Sciammas R, Clark MR.

The Journal of Experimental Medicine 2017 Dec; 214(12):3775.

Application: IF, Mouse, Splenocytes

- [Activation of TLR9-dependent p38MAPK pathway in the pathogenesis of primary Sjögren's syndrome in NOD/Ltj mouse.](#)  
Shi H, Yu CQ, Xie LS, Wang ZJ, Zhang P, Zheng LY.  
Journal of Oral Pathology & Medicine 2014 Nov; 43(10):785.  
  
Application: Flow Cyt, Mouse, PBMCs
- [TLR9 is expressed in idiopathic interstitial pneumonia and its activation promotes in vitro myofibroblast differentiation.](#)  
Meneghin A, Choi ES, Evanoff HL, Kunkel SL, Martinez FJ, Flaherty KR, Toews GB, Hogaboam CM.  
Histochemistry and Cell Biology 2008 Jul; 130(5):979.
- [Induction of pro-inflammatory programs in enteroendocrine cells by the Toll-like receptor agonists flagellin and bacterial LPS.](#)  
Selleri S, Palazzo M, Deola S, Wang E, Balsari A, Marincola FM, Rumio C.  
International Immunology 2008 Jun; 20(8):961.
- [Expression of TLR9 within human glioblastoma.](#)  
Meng Y, Kujas M, Marie Y, Paris S, Thillet J, Delattre JY, Carpentier AF.  
Journal of Neuro-Oncology 2008 Feb; 88(1):19.
- [Role of pathogenic auto-antibody production by Toll-like receptor 9 of B cells in active systemic lupus erythematosus.](#)  
Nakano S, Morimoto S, Suzuki J, Nozawa K, Amano H, Tokano Y, Takasaki Y.  
Rheumatology (Oxford) 2007 Dec; 47(2):145.
- [Toll-like receptor 9 expression in murine and human adrenal glands and possible implications during inflammation.](#)  
Tran N, Koch A, Berkels R, Boehm O, Zacharowski PA, Baumgarten G, Knuefermann P, Schott M, Kanczkowski W, Bornstein SR, Lightman SL, Zacharowski K.  
The Journal of Clinical Endocrinology and Metabolism 2007 May; 92(7):2773.
- [Intracellular signaling mechanisms regulating toll-like receptor-mediated activation of eosinophils.](#)  
Wong CK, Cheung PF, Ip WK, Lam CW.  
American Journal of Respiratory Cell and Molecular Biology 2007 Mar; 37(1):85.

- [Surface expression of Toll-like receptor 9 is upregulated on intestinal epithelial cells in response to pathogenic bacterial DNA.](#)

Julia B Ewaschuk, Jody L Backer, Thomas A Churchill, Florian Obermeier, Denis O Krause, Karen L Madsen.

Infection and Immunity 2007 May; 75(5):2572.

Application: Flow Cyt, IF, IHC-P, WB-Ce, WB-Ti, Human, Mouse, HT-29 cells, Mouse intestine

- [Members of the Toll-like receptor family of innate immunity pattern-recognition receptors are abundant in the male rat reproductive tract.](#)

Palladino MA, Johnson TA, Gupta R, Chapman JL, Ojha P.

Biology of Reproduction 2007 Jun; 76(6):958.

- [Maintenance of colonic homeostasis by distinctive apical TLR9 signalling in intestinal epithelial cells.](#)

Jongdae Lee, Ji-Hun Mo, Kyoko Katakura, Irit Alkalay, Adam N Rucker, Yu-Tsueng Liu, Hyun-Ku Lee, Carol Shen, Gady Cojocaru, Steve Shenouda, Martin Kagnoff, Lars Eckmann, Yinon Ben-Neriah, Eyal Raz.

Nature Cell Biology 2006 Dec; 8(12):1327.

Application: Flow Cyt, IF, IHC, WB-Ce, WB-Tr, Human, Mouse, Caco-2, HCA-7, HEK 293, HT-29, Ramos, RPMI8226 cells, Human colonic biopsy, Mouse intestinal epithelial cells

- [Toll-like receptor 9 \(TLR9\) is present in murine liver sinusoidal endothelial cells \(LSECs\) and mediates the effect of CpG-oligonucleotides.](#)

Montserrat Martin-Armas, Jaione Simon-Santamaria, Ingvild Pettersen, Ugo Moens, Bård Smedsrod, Baldur Sveinbjornsson.

Journal of Hepatology 2006 May; 44(5):939.

Application: IF, IHC-P, Neutralization, Mouse, Mouse livers, Mouse liver sinusoidal endothelial cells

- [Expression of mRNA and proteins for toll-like receptors, associated molecules, defensins and LL-37 by SRIK-NKL, a CD8+ NK/T cell line.](#)

Srivastava MD, Srivastava BI.

Leukemia Research 2005 Jul; 29(7):813.

- [TGF-alpha regulates TLR expression and function on epidermal keratinocytes.](#)

Lloyd S Miller, Ole E Sørensen, Philip T Liu, H Ray Jalian, Deborah Eshtiaghpour, Behnaz E Behmanesh, Woosin Chung, Timothy D Starnes, Jenny Kim, Peter A Sieling, Tomas Ganz, Robert L Modlin.

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Application: IHC-Fr, Human, Skin

- [Deoxycytidyl-deoxyguanosine oligonucleotide classes A, B, and C induce distinct cytokine gene expression patterns in rhesus monkey peripheral blood mononuclear cells and distinct alpha interferon responses in TLR9-expressing rhesus monkey plasmacytoid dendritic cells.](#)

Kristina Abel, Yichuan Wang, Linda Fritts, Eleonora Sanchez, Eugene Chung, Patricia Fitzgerald-Bocarsly, Arthur M Krieg, Christopher J Miller.

Clinical and Diagnostic Laboratory Immunology 2005 May; 12(5):606.

Application: Flow Cyt, Macaque, Macaque T cells

- [TLR-induced inflammation in cystic fibrosis and non-cystic fibrosis airway epithelial cells.](#)

Catherine M Greene, Tomas P Carroll, Stephen G J Smith, Clifford C Taggart, James Devaney, Siobhan Griffin, Shane J O'Neill, Noel G McElvaney.

Journal of Immunology 2005 Feb; 174(3):1638.

Application: Flow Cyt, IF, Human, CFTE29o and 16HBE14o cells

- [Human lung cancer cells express functionally active Toll-like receptor 9.](#)

Daniel Droemann, Dirk Albrecht, Johannes Gerdes, Artur J Ulmer, Detlev Branscheid, Ekkehard Vollmer, Klaus Dalhoff, Peter Zabel, Torsten Goldmann.

Respiratory Research 2005 Jan; 6(1):1.

Application: IF, IHC-P, Human, A-549 cells, Human lung adenocarcinoma, Human lung squamous cell carcinoma

- [Cytoplasmic domain-mediated dimerizations of toll-like receptor 4 observed by beta-lactamase enzyme fragment complementation.](#)

Hyun-Ku Lee, Stefan Dunzendorfer, Peter S Tobias.

The Journal of Biological Chemistry 2004 Mar; 279(11):10564.

Application: WB-Tr, Human, HEK 293 cells

- [Drug-induced ventricular tachyarrhythmia in isolated rabbit hearts with atrioventricular block.](#)

Yoshihide Kii, Tsugutaka Ito.

Pharmacology & Toxicology 2002 May; 90(5):246.

## Pathway

- [Toll-like receptor signaling pathway](#)

## Disease

- [Adenocarcinoma](#)

- [Anemia](#)
- [Arthritis](#)
- [Arthropathy](#)
- [Aspergillosis](#)
- [Asthma](#)
- [Atherosclerosis](#)
- [Behcet Syndrome](#)
- [Birth Weight](#)
- [Breast Neoplasms](#)
- [Bronchial Hyperreactivity](#)
- [Bronchiolitis](#)
- [Bronchiolitis Obliterans](#)
- [Calcinosis](#)
- [Cardiovascular Diseases](#)
- [Chagas Cardiomyopathy](#)
- [Chorioamnionitis](#)
- [Chronic Disease](#)
- [Chronic Periodontitis](#)
- [Colitis](#)
- [Common Variable Immunodeficiency](#)
- [Connective Tissue Diseases](#)
- [Coronary Artery Disease](#)
- [Crohn Disease](#)
- [Cytomegalovirus Infections](#)
- [Dermatitis](#)
- [Diabetes Mellitus](#)

- [Disease Progression](#)
- [Eczema](#)
- [Edema](#)
- [Esophageal Neoplasms](#)
- [Fetal Diseases](#)
- [Fetal Membranes](#)
- [Genetic Predisposition to Disease](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Graves Ophthalmopathy](#)
- [Helicobacter Infections](#)
- [Hematologic Neoplasms](#)
- [Hemochromatosis](#)
- [Hemorrhagic Fever](#)
- [Hepatitis C](#)
- [HIV Infections](#)
- [Hodgkin Disease](#)
- [Hypersensitivity](#)
- [Immunodeficiency with hyper-IgM](#)
- [Infant](#)
- [Infection](#)
- [Inflammation](#)
- [Inflammatory Bowel Diseases](#)
- [Leukemia](#)
- [Liver Cirrhosis](#)
- [Lung Diseases](#)



- [Lung Neoplasms](#)
- [Lupus Erythematosus](#)
- [Lupus Nephritis](#)
- [Lymphoma](#)
- [Malaria](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Multiple Sclerosis](#)
- [Musculoskeletal Diseases](#)
- [Mycobacterium Infections](#)
- [Mycoses](#)
- [Obstetric Labor](#)
- [Parasitemia](#)
- [Pneumonia](#)
- [Pouchitis](#)
- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Puerperal Disorders](#)
- [Pulmonary Disease](#)
- [Recurrence](#)
- [Respiratory Sounds](#)
- [Respiratory Syncytial Virus Infections](#)
- [Rhinitis](#)

- [Sarcoidosis](#)
- [Schizophrenia](#)
- [Sepsis](#)
- [Skin Diseases](#)
- [Stomach Neoplasms](#)
- [Streptococcal Infections](#)
- [Tuberculosis](#)
- [Virus Diseases](#)