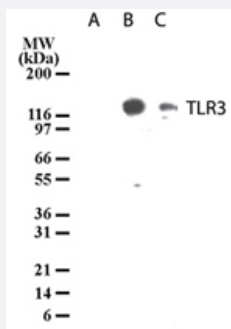


TLR3 monoclonal antibody, clone 40C1285.6

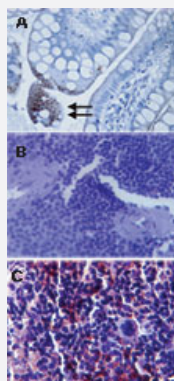
Catalog # MAB0088 Size 100 ug

Applications



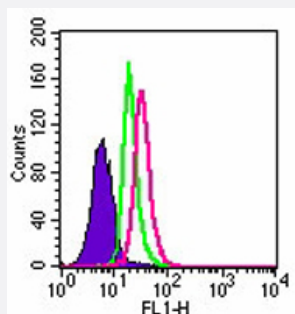
Western Blot

Western blot analysis of TLR3 in lysates from untransfected 293 cells (lane A), 293 cells transfected with human TLR3 cDNA (lane B), and 20 ug/lane human intestine tissue lysate (lane C). Using TLR3 monoclonal antibody, clone 40C1285.6 (Cat # MAB0088).



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

IHC analysis of TLR3 in (A) human gut lumen (longitudinal section, transverse region). Using TLR3 monoclonal antibody, clone 40C1285.6 (Cat # MAB0088) at 10 ug/mL (Data courtesy Dr. Elizabeth Furrie, University of Dundee) and mouse spleen tissue using isotype control (B) and TLR3 monoclonal antibody, clone 40C1285.6 (Cat # MAB0088) (C) at 5 mg/mL.



Flow Cytometry

Intracellular flow analysis of TLR3 in Ramos cells. Using 2 ug of TLR3 monoclonal antibody, clone 40C1285.6 (Cat # MAB0088). Shaded histogram represents Ramos cells without antibody; Green represents isotype control; red represents anti-TLR3 antibody.

Specification

Product Description

Mouse monoclonal antibody raised against synthetic peptide of TLR3.

Immunogen	A synthetic peptide corresponding to amino acids 55-85 of human TLR3.
Host	Mouse
Reactivity	Human
Form	Liquid
Isotype	IgG1
Recommend Usage	The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.05% BSA, 0.05% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	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 TLR3 in lysates from untransfected 293 cells (lane A), 293 cells transfected with human TLR3 cDNA (lane B), and 20 ug/lane human intestine tissue lysate (lane C). Using TLR3 monoclonal antibody, clone 40C1285.6 (Cat # MAB0088).

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

IHC analysis of TLR3 in (A) human gut lumen (longitudinal section, transverse region). Using TLR3 monoclonal antibody, clone 40C1285.6 (Cat # MAB0088) at 10 ug/mL (Data courtesy Dr. Elizabeth Furrie, University of Dundee) and mouse spleen tissue using isotype control (B) and TLR3 monoclonal antibody, clone 40C1285.6 (Cat # MAB0088) (C) at 5 mg/mL .

- Immunocytochemistry

- Immunofluorescence

- Immunoprecipitation

- Flow Cytometry

Intracellular flow analysis of TLR3 in Ramos cells. Using 2 ug of TLR3 monoclonal antibody, clone 40C1285.6 (Cat # MAB0088). Shaded histogram represents Ramos cells without antibody; Green represents isotype control; red represents anti-TLR3 antibody.

Gene Info — TLR3

Entrez GeneID [7098](#)

Protein Accession# [AAH59372.1](#)

Gene Name TLR3

Gene Alias CD283

Gene Description toll-like receptor 3

Omim ID [603029](#)

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 receptor is most abundantly expressed in placenta and pancreas, and is restricted to the dendritic subpopulation of the leukocytes. It recognizes dsRNA associated with viral infection, and induces the activation of NF-kappaB and the production of type I interferons. It may thus play a role in host defense against viruses. Use of alternative polyadenylation sites to generate different length transcripts has been noted for this gene. [provided by RefSeq]

Other Designations -

Publication Reference

- [Human \$\beta\$ -defensin-3 correlates with muscle fibre degeneration in idiopathic inflammatory myopathies.](#)

Guttsches AK, Jacobsen F, Theiss C, Rittig A, Rehimi R, Kley RA, Vorgerd M, Steinstraesser L.
Innate Immunity 2014 Jan; 20(1):49.

Application: IF, IHC-Fr, Human, Human muscle biopsies

- [Viral double-stranded RNA sensors induce antiviral, pro-inflammatory, and pro-apoptotic responses in human renal tubular epithelial cells.](#)

Heutinck KM, Rowshani AT, Kassies J, Claessen N, van Donselaar-van der Pant KA, Bemelman FJ, Eldering E, van Lier RA, Florquin S, Ten Berge IJ, Hamann J.

Kidney International 2012 Sep; 82(6):664.

Application: IHC-P, Human, Kidney transplant patients

- [SerpinB9 expression in human renal tubular epithelial cells is induced by triggering of the viral dsRNA sensors TLR3, MDA5 and RIG-I.](#)

Heutinck KM, Kassies J, Florquin S, Ten Berge IJ, Hamann J, Rowshani AT.

Nephrology, Dialysis, Transplantation 2011 Dec; 27(7):2746.

Application: WB, Human, Tubular epithelial cells (TECs)

- [Double-stranded RNA mediates interferon regulatory factor 3 activation and interleukin-6 production by engaging Toll-like receptor 3 in human brain astrocytes.](#)

Kim H, Yang E, Lee J, Kim SH, Shin JS, Park JY, Choi SJ, Kim SJ, Choi IH.

Immunology 2008 Jan; 124(4):480.

- [Identification of Toll-like receptor 3 as a potential therapeutic target in clear cell renal cell carcinoma.](#)

Morikawa T, Sugiyama A, Kume H, Ota S, Kashima T, Tomita K, Kitamura T, Kodama T, Fukayama M, Aburatani H.

Clinical Cancer Research 2007 Oct; 13(19):5703.

- [Key differences in TLR3/poly I:C signaling and cytokine induction by human primary cells: a phenomenon absent from murine cell systems.](#)

Lundberg AM, Drexler SK, Monaco C, Williams LM, Sacre SM, Feldmann M, Foxwell BM.

Blood 2007 Jul; 110(9):3245.

- [Effects of single nucleotide polymorphisms on Toll-like receptor 3 activity and expression in cultured cells.](#)

Ranjith-Kumar CT, Miller W, Sun J, Xiong J, Santos J, Yarbrough I, Lamb RJ, Mills J, Duffy KE, Hoose S, Cunningham M, Holzenburg A, Mbow ML, Sarisky RT, Kao CC.

The Journal of Biological Chemistry 2007 Apr; 282(24):17696.

- [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.

- [Biochemical and functional analyses of the human Toll-like receptor 3 ectodomain.](#)

C T Ranjith-Kumar, William Miller, Jin Xiong, William K Russell, Roberta Lamb, Jonathan Santos, Karen E Duffy, Larissa Cleveland, Mary Park, Kanchan Bhardwaj, Zhaoxiang Wu, David H Russell, Robert T Sarisky, M Lamine Mbow, C Cheng Kao.

The Journal of Biological Chemistry 2007 Mar; 282(10):7668.

Application: Flow Cyt, IF, WB-Tr, Human, HEK 293T cells

- [High-avidity antitumor T-cell generation by toll receptor 8-primed, myeloid- derived dendritic cells is mediated by IL-12 production.](#)

Shuwen Xu, Ursula Koldovsky, Min Xu, Daniel Wang, Elizabeth Fitzpatrick, Gilsoo Son, Gary Koski, Brian J Czerniecki.
Surgery 2006 Aug; 140(2):170.

- [Toll-like receptor 3 associates with c-Src tyrosine kinase on endosomes to initiate antiviral signaling.](#)

Johnsen IB, Nguyen TT, Ringdal M, Tryggestad AM, Bakke O, Lien E, Espevik T, Anthonsen MW.
The EMBO Journal 2006 Jul; 25(14):3335.

Application: IF, WB-Tr, Human, HEK-Flag-tagged TLR3, Monocyte-derived dendritic cells

- [Toll-like receptor 3 signaling evokes a proinflammatory and proliferative phenotype in human vascular smooth muscle cells.](#)

Xin Yang, Vanishree Murthy, Kelly Schultz, Jeffrey B Tatro, Katherine A Fitzgerald, Debbie Beasley.
American Journal of Physiology. Heart and Circulatory Physiology 2006 Nov; 291(5):H2334.

Application: WB-Ce, WB-Tr, Human, Mouse, HCoASMCs, Human vascular smooth muscle cells, Mouse vascular smooth muscle cells

- [Modulation of neonatal microbial recognition: TLR-mediated innate immune responses are specifically and differentially modulated by human milk.](#)

Emmanuel LeBouder, Julia E Rey-Nores, Anne-Catherine Raby, Michael Affolter, Karine Vidal, Catherine A Thornton, Mario O Labeta.
Journal of Immunology 2006 Mar; 176(6):3742.

Application: Flow Cyt, Human, Human dendritic cells

- [Structural and functional analyses of the human Toll-like receptor 3. Role of glycosylation.](#)

Jingchuan Sun, Karen E Duffy, C T Ranjith-Kumar, Jin Xiong, Roberta J Lamb, Jon Santos, Hema Masarapu, Mark Cunningham, Andreas Holzenburg, Robert T Sarisky, M Lamine Mbow, Cheng Kao.
The Journal of Biological Chemistry 2006 Apr; 281(16):11144.

Application: Flow Cyt, WB-Tr, Human, HEK 293T cells

- [Respiratory syncytial virus induces TLR3 protein and protein kinase R, leading to increased double-stranded RNA responsiveness in airway epithelial cells.](#)

Dayna J Groskreutz, Martha M Monick, Linda S Powers, Timur O Yarovinsky, Dwight C Look, Gary W Hunninghake.
Journal of Immunology 2006 Feb; 176(3):1733.

Application: Flow Cyt, IF, Human, A-549 cells, Human tracheobronchial epithelial cells

- [Toll-like receptor 4 signaling regulates cytosolic phospholipase A2 activation and lipid generation in lipopolysaccharide-stimulated macrophages.](#)

Hai-Yan Qi, James H Shelhamer.

The Journal of Biological Chemistry 2005 Nov; 280(47):38969.

Application: WB-Tr, Mouse, Raw 264.7 cells

- [Recognition of double-stranded RNA by human toll-like receptor 3 and downstream receptor signaling requires multimerization and an acidic pH.](#)

Odette de Bouteiller, Estelle Merck, Uzma A Hasan, Sylvain Hubac, Barbara Benguigui, Giorgio Trinchieri, Elizabeth E M Bates, Christophe Caux.

The Journal of Biological Chemistry 2005 Nov; 280(46):38133.

Application: Flow Cyt, Func, WB-Tr, Human, HEK 293T, U-937 cells

- [Toll-like receptors-2, -3 and -4 expression patterns on human colon and their regulation by mucosal-associated bacteria.](#)

Elizabeth Furrie, Sandra Macfarlane, George Thomson, George T Macfarlane, Microbiology & Gut Biology Group; Tayside Tissue & Tumour Bank.

Immunology 2005 Aug; 115(4):565.

Application: IF, IHC-P, Human, HT-29 cells, Human colon, Human kidney

- [Regulation of the polymeric Ig receptor by signaling through TLRs 3 and 4: linking innate and adaptive immune responses.](#)

Tracey A Schneeman, Maria E C Bruno, Hilde Schjerven, Finn-Eirik Johansen, Laura Chady, Charlotte S Kaetzel.

The Journal of Immunology 2005 Jul; 175(1):376.

- [Triggering of TLR3 by polyI:C in human corneal epithelial cells to induce inflammatory cytokines.](#)

Mayumi Ueta, Junji Hamuro, Hiroshi Kiyono, Shigeru Kinoshita.

Biochemical and Biophysical Research Communications 2005 May; 331(1):285.

Application: Flow Cyt, Human, HCFB, HeLa, MRC-5 cells, Human primary corneal epithelial cells

- [Inhibition of neutrophil apoptosis by TLR agonists in whole blood: involvement of the phosphoinositide 3-kinase/Akt and NF-kappaB signaling pathways, leading to increased levels of Mcl-1, A1, and phosphorylated Bad.](#)

Francois S, El Benna J, Dang PM, Pedruzzi E, Gougerot-Pocidalo MA, Elbim C.

Journal of Immunology 2005 Mar; 174(6):3633.

- [Distinct poly\(I-C\) and virus-activated signaling pathways leading to interferon-beta production in hepatocytes.](#)

Li K, Chen Z, Kato N, Gale M Jr, Lemon SM.

The Journal of Biological Chemistry 2005 Apr; 280(17):16739.

Application: WB, Human, Huh7 cells

- [Thyocytes express a functional toll-like receptor 3: overexpression can be induced by viral infection and reversed by phenylmethimazole and is associated with Hashimoto's autoimmune thyroiditis.](#)

Norikazu Harii, Christopher J Lewis, Vasily Vasko, Kelly McCall, Uruguaysito Benavides-Peralta, Xiaolu Sun, Matthew D Ringel, Motoyasu Saji, Cesidio Giuliani, Giorgio Napolitano, Douglas J Goetz, Leonard D Kohn.

Molecular Endocrinology (Baltimore, Md.) 2005 May; 19(5):1231.

Application: IHC-P, IP, WB-Tr, Hamster, Human, Rat, CHO-K1, FRTL-5 cells, Human thyroid tissues

- [The effect of innate immunity on autoimmune diabetes and the expression of Toll-like receptors on pancreatic islets.](#)

Li Wen, Jian Peng, Zhenjun Li, F Susan Wong.

Journal of Immunology 2004 Mar; 172(5):3173.

Application: Flow Cyt, Human, Mouse, B6/RIP-B7.1 cells, Human islet cells, J774 macrophages, Mouse islet cells

- [Subcellular localization of Toll-like receptor 3 in human dendritic cells.](#)

Misako Matsumoto, Kenji Funami, Masako Tanabe, Hiroyuki Oshiumi, Masashi Shingai, Yoshiyuki Seto, Akitsugu Yamamoto, Tsukasa Seya.

Journal of Immunology 2003 Sep; 171(6):3154.

Application: Flow Cyt, Func, IEM, IF, IP, WB-Tr, Human, Mouse, Ba/F3, HEK 293, HeLa, Human monocyte-derived dendritic cells

Pathway

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

Disease

- [Arthritis](#)
- [Aspergillosis](#)
- [Asthma](#)
- [Birth Weight](#)
- [Breast Neoplasms](#)

- [Bronchiolitis](#)
- [Bronchiolitis Obliterans](#)
- [Cardiomyopathy](#)
- [Cardiovascular Diseases](#)
- [Chorioamnionitis](#)
- [Choroidal Neovascularization](#)
- [Chronic Disease](#)
- [Connective Tissue Diseases](#)
- [Coxsackievirus Infections](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Epidermal Necrolysis](#)
- [Eye Diseases](#)
- [Fetal Diseases](#)
- [Fetal Membranes](#)
- [Genetic Predisposition to Disease](#)
- [Geographic Atrophy](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Hepatitis C](#)
- [HIV Infections](#)
- [Hodgkin Disease](#)
- [Hypersensitivity](#)
- [Infant](#)
- [Infection](#)

- [Inflammation](#)
- [Kidney Failure](#)
- [Leukemia](#)
- [Macular Degeneration](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Multiple Sclerosis](#)
- [Musculoskeletal Diseases](#)
- [Myocarditis](#)
- [Nasopharyngeal Neoplasms](#)
- [Obstetric Labor](#)
- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Respiratory Syncytial Virus Infections](#)
- [Skin Diseases](#)
- [Stevens-Johnson Syndrome](#)
- [Subacute Sclerosing Panencephalitis](#)
- [Virus Diseases](#)