

TLR4 monoclonal antibody, clone HTA125 (NaN3 Free)

Catalog # MAB0072 Size 100 ug

Specification

Product Description	Mouse monoclonal antibody raised against full length recombinant TLR4.
Immunogen	Recombinant protein corresponding to full length human TLR4.
Host	Mouse
Reactivity	Human
Form	Liquid
Isotype	IgG2a
Recommend Usage	The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.

Applications

- Immunocytochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytometry

Gene Info — TLR4

Entrez GeneID

[7099](#)

Gene Name	TLR4
Gene Alias	ARMD10, CD284, TOLL, hToll
Gene Description	toll-like receptor 4
Omim ID	603030
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 in myelomonocytic subpopulation of the leukocytes. It has been implicated in signal transduction events induced by lipopolysaccharide (LPS) found in most gram-negative bacteria. Mutations in this gene have been associated with differences in LPS responsiveness. Also, several transcript variants of this gene have been found, but the protein coding potential of most of them is uncertain. [provided by RefSeq]
Other Designations	OTTHUMP00000022807 homolog of Drosophila toll

Publication Reference

- [TLR2 and TLR4 expression on the immune cells of tuberculous pleural fluid.](#)

Prabha C, Rajashree P, Sulochana DD.
Immunology Letters 2007 Dec; 117(1):26.
- [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.
- [Execution of macrophage apoptosis by PE_PGRS33 of Mycobacterium tuberculosis is mediated by Toll-like receptor 2-dependent release of tumor necrosis factor-alpha.](#)

Basu S, Pathak SK, Banerjee A, Pathak S, Bhattacharyya A, Yang Z, Talarico S, Kundu M, Basu J.
The Journal of Biological Chemistry 2006 Nov; 282(2):1039.
- [RANTES modulates TLR4-induced cytokine secretion in human peripheral blood monocytes.](#)

Shahrara S, Park CC, Temkin V, Jarvis JW, Volin MV, Pope RM.
Journal of Immunology 2006 Oct; 177(8):5077.

- [In celiac disease, a subset of autoantibodies against transglutaminase binds toll-like receptor 4 and induces activation of monocytes.](#)

Giovanna Zanoni, Riccardo Navone, Claudio Lunardi, Giuseppe Tridente, Caterina Bason, Simona Sivori, Ruggero Beri, Marzia Dolcino, Enrico Valletta, Roberto Corrocher, Antonio Puccetti.

PLoS Medicine 2006 Sep; 3(9):e358.

- [NF-kappaB- and C/EBPbeta-driven interleukin-1beta gene expression and PAK1-mediated caspase-1 activation play essential roles in interleukin-1beta release from Helicobacter pylori lipopolysaccharide-stimulated macrophages.](#)

Chaitali Basak, Sushil Kumar Pathak, Asima Bhattacharyya, Debabrata Mandal, Shresh Pathak, Manikuntala Kundu.

The Journal of Biological Chemistry 2005 Feb; 280(6):4279.

Application: Neutralization, Human, THP-1 cells

- [Toll-like receptor expression in human keratinocytes: nuclear factor kappaB controlled gene activation by Staphylococcus aureus is toll-like receptor 2 but not toll-like receptor 4 or platelet activating factor receptor dependent.](#)

Mempel M, Voelcker V, Kollisch G, Plank C, Rad R, Gerhard M, Schnopp C, Fraunberger P, Walli AK, Ring J, Abeck D, Ollert M.

The Journal of Investigative Dermatology 2003 Dec; 121(6):1389.

Application: IF, Human, Human keratinocytes

- [Highly purified lipoteichoic acid activates neutrophil granulocytes and delays their spontaneous apoptosis via CD14 and TLR2.](#)

Lotz S, Aga E, Wilde I, van Zandbergen G, Hartung T, Solbach W, Laskay T.

Journal of Leukocyte Biology 2004 Mar; 75(3):467.

Application: Func, IA, Human, Neutrophils

Pathway

- [Pathogenic Escherichia coli infection - EHEC](#)
- [Toll-like receptor signaling pathway](#)

Disease

- [Abortion](#)
- [Achlorhydria](#)
- [Acute Disease](#)

- [Adenocarcinoma](#)
- [Aggressive Periodontitis](#)
- [AIDS-Related Opportunistic Infections](#)
- [Airway Obstruction](#)
- [Albuminuria](#)
- [Alveolar Bone Loss](#)
- [Alzheimer disease](#)
- [Amyloidosis](#)
- [Anemia](#)
- [Angina Pectoris](#)
- [Anus Diseases](#)
- [Aortic Diseases](#)
- [Appendicitis](#)
- [Arteriosclerosis](#)
- [Arthritis](#)
- [Arthropathy](#)
- [Aspergillosis](#)
- [Asthma](#)
- [Atherosclerosis](#)
- [Atrophy](#)
- [Autoimmune Diseases](#)
- [Bacteremia](#)
- [Bacterial Infections](#)
- [Bacteriuria](#)
- [Behcet Syndrome](#)
- [Birth Weight](#)

- [Boutonneuse Fever](#)
- [Brain Infarction](#)
- [Brain Ischemia](#)
- [Breast Neoplasms](#)
- [Bronchial Hyperreactivity](#)
- [Bronchiolitis](#)
- [Bronchiolitis Obliterans](#)
- [Brucellosis](#)
- [Burns](#)
- [Calcinosis](#)
- [Campylobacter Infections](#)
- [Candidiasis](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Carotid Artery Diseases](#)
- [Carotid Stenosis](#)
- [Celiac Disease](#)
- [Cellulitis](#)
- [Cerebral Palsy](#)
- [Cerebrovascular Accident](#)
- [Chagas Cardiomyopathy](#)
- [Chlamydia Infections](#)
- [Cholangitis](#)
- [Chorioamnionitis](#)
- [Chronic Disease](#)
- [Chronic Periodontitis](#)

- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colitis](#)
- [Colorectal Neoplasms](#)
- [Conjunctivitis](#)
- [Connective Tissue Diseases](#)
- [Coronary Artery Disease](#)
- [Coronary Disease](#)
- [Coronary Restenosis](#)
- [Coronary Stenosis](#)
- [Critical Illness](#)
- [Crohn Disease](#)
- [Cross Infection](#)
- [Cystic fibrosis](#)
- [Cystitis](#)
- [Cytomegalovirus Infections](#)
- [Death](#)
- [Dementia](#)
- [Dental Plaque](#)
- [Dermatitis](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Diabetic Neuropathies](#)
- [Diabetic Retinopathy](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)

- [Ductus Arteriosus](#)
- [Duodenal Ulcer](#)
- [Eczema](#)
- [Edema](#)
- [Elephantiasis](#)
- [Endotoxemia](#)
- [Enterocolitis](#)
- [Epilepsy](#)
- [Esophageal Neoplasms](#)
- [Fallopian Tube Diseases](#)
- [Familial Mediterranean fever](#)
- [Fetal Diseases](#)
- [Fetal Membranes](#)
- [Food Hypersensitivity](#)
- [Fractures](#)
- [Fungemia](#)
- [Gallbladder Neoplasms](#)
- [Gastritis](#)
- [Genetic Predisposition to Disease](#)
- [Giant Cell Arteritis](#)
- [Gingival Hemorrhage](#)
- [Glaucoma](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Graft vs Host Disease](#)
- [Gram-Negative Bacterial Infections](#)

- [Graves Ophthalmopathy](#)
- [Guillain-Barre Syndrome](#)
- [Head and Neck Neoplasms](#)
- [Helicobacter Infections](#)
- [HELLP Syndrome](#)
- [Hematologic Diseases](#)
- [Hematologic Neoplasms](#)
- [Hemochromatosis](#)
- [Hepatitis B](#)
- [Hepatitis C](#)
- [HIV Infections](#)
- [Hodgkin Disease](#)
- [Humeral Fractures](#)
- [Hypercholesterolemia](#)
- [Hyperlipoproteinemia Type II](#)
- [Hypersensitivity](#)
- [Hypertension](#)
- [Hypertrophy](#)
- [Infant](#)
- [Infection](#)
- [Infertility](#)
- [Inflammation](#)
- [Inflammatory Bowel Diseases](#)
- [Insulin Resistance](#)
- [Kidney Diseases](#)
- [Kidney Failure](#)

- [Leprosy](#)
- [Leukemia](#)
- [Lipodystrophy](#)
- [Liver Cirrhosis](#)
- [Liver Diseases](#)
- [Lung Diseases](#)
- [Lupus Erythematosus](#)
- [Lymphadenitis](#)
- [Lymphoma](#)
- [Lymphoproliferative Disorders](#)
- [Macular Degeneration](#)
- [Malaria](#)
- [Melanoma](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Meningococcal Infections](#)
- [Metabolic Syndrome X](#)
- [Metaplasia](#)
- [Multiple Myeloma](#)
- [Multiple Organ Failure](#)
- [Multiple Sclerosis](#)
- [Musculoskeletal Diseases](#)
- [Mycobacterium Infections](#)
- [Mycoses](#)
- [Myocardial Infarction](#)
- [Nasopharyngeal Neoplasms](#)

- [Necrosis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Nephritis](#)
- [Neurocysticercosis](#)
- [Obesity](#)
- [Obstetric Labor](#)
- [Occupational Diseases](#)
- [Opportunistic Infections](#)
- [Otitis Media](#)
- [Otosclerosis](#)
- [Pancreatitis](#)
- [Papillomavirus Infections](#)
- [Parasitemia](#)
- [Periodontal Attachment Loss](#)
- [Periodontal Diseases](#)
- [Periodontal Pocket](#)
- [Periodontitis](#)
- [Peripheral Vascular Diseases](#)
- [Pneumococcal Infections](#)
- [Pneumonia](#)
- [Polymyalgia Rheumatica](#)
- [Postoperative Complications](#)
- [Pouchitis](#)
- [Precancerous Conditions](#)
- [Pre-Eclampsia](#)

- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Puerperal Disorders](#)
- [Pulmonary Disease](#)
- [Purpura](#)
- [Pyelonephritis](#)
- [Q Fever](#)
- [Rectal Fistula](#)
- [Recurrence](#)
- [Reperfusion Injury](#)
- [Respiratory Sounds](#)
- [Respiratory Syncytial Virus Infections](#)
- [Rheumatic Heart Disease](#)
- [Rhinitis](#)
- [Salmonella Infections](#)
- [Sarcoidosis](#)
- [Sepsis](#)
- [Shock](#)
- [Skin Diseases](#)
- [Skin Neoplasms](#)
- [Spondylitis](#)
- [Stomach Neoplasms](#)
- [Streptococcal Infections](#)

- [Stroke](#)
- [Systemic Inflammatory Response Syndrome](#)
- [Thrombosis](#)
- [Tooth Abnormalities](#)
- [Toxoplasmosis](#)
- [Tuberculosis](#)
- [Tympanic Membrane Perforation](#)
- [Typhoid Fever](#)
- [Urinary Bladder Neoplasms](#)
- [Urinary Tract Infections](#)
- [Uterine Cervical Neoplasms](#)
- [Uveitis](#)
- [Vaginal Diseases](#)
- [Vaginosis](#)
- [Virus Diseases](#)
- [Vision](#)
- [Waldenstrom Macroglobulinemia](#)
- [Werner syndrome](#)
- [Wounds and Injuries](#)