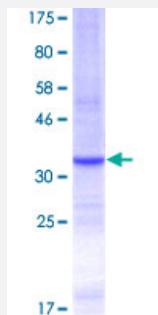


TLR4 (Human) Recombinant Protein (Q01)

Catalog # H00007099-Q01

Size 25 ug, 10 ug

Applications



Specification

Product Description	Human TLR4 partial ORF (NP_612564, 214 a.a. - 291 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	PMNFIQPGAFKEIRLHKLTRNNFDSLNVMTCTIQGLAGLEVHRLVLGGEFRNEGNLEKFDKSALEG LCNLTIEEFRLA
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	34.32
Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — TLR4

Entrez GeneID [7099](#)

GeneBank Accession# [NM_138554](#)

Protein Accession# [NP_612564](#)

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

- [CD200 restrains macrophage attack on oligodendrocyte precursors via toll-like receptor 4 downregulation.](#)

Hayakawa K, Pham LD, Seo JH, Miyamoto N, Maki T, Terasaki Y, Sakadžić S, Boas D, van Leyen K, Waeber C, Kim KW, Arai K, Lo EH.

Journal of Cerebral Blood Flow and Metabolism 2016 Apr; 36(4):781.

Application: Pull-Down, Rat, Oligodendrocyte precursor cells

- [Analysis of Mechanistic Pathway Models in Drug Discovery: p38 Pathway.](#)

Hendriks BS, Hua F, Chabot JR.

Biotechnology Progress 2007 Oct; 24(1):96.

Application: Quant, WB, Human, U937 cells

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](#)