

## **TLR4 Polyclonal Antibody**

Catalog No: YN5450

**Reactivity:** Human; Mouse; Rat

**Applications:** IHC;IF

Target: TLR4

**Fields:** >>NF-kappa B signaling pathway;>>HIF-1 signaling

pathway;>>Phagosome;>>PI3K-Akt signaling

pathway;>>Necroptosis;>>Neutrophil extracellular trap formation;>>Toll-like receptor signaling pathway;>>NOD-like receptor signaling pathway;>>Alcoholic liver disease;>>Pathogenic Escherichia coli infection;>>Shigellosis;>>Salmonella

infection;>>Pertussis;>>Legionellosis;>>Yersinia

infection;>>Leishmaniasis;>>Chagas

disease;>>Malaria;>>Toxoplasmosis;>>Amoebiasis;>>Tuberculosis;>>Hepatitis

B;>>Measles;>>Influenza A;>>Human immunodeficiency virus 1

infection;>>Coronavirus disease - COVID-19;>>Proteoglycans in cancer;>>PD-L1 expression and PD-1 checkpoint pathway in cancer;>>Inflammatory bowel

disease;>>Rheumatoid arthritis;>>Lipid and atherosclerosis

Gene Name: TLR4

**Protein Name:** Toll-like receptor 4

Human Gene Id: 7099

**Human Swiss Prot** 

O00206

No:

**Mouse Swiss Prot** 

Q9QUK6

No:

Rat Swiss Prot No: Q9QX05

Immunogen: Recombinant Protein of TLR4

**Specificity:** The antibody detects endogenous TLR4 protein.

**Formulation:** PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and

50% Glycerol.



Source: Polyclonal, Rabbit, IgG

**Dilution :** IHC 1:200-500. IF 1:50-200

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

**Cell Pathway:** Toll\_Like;Pathogenic Escherichia coli infection;

**Background :** 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 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 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. Multiple transcript variants

encoding different isoforms have been found for this gene. [provided by RefSeg,

Jan 2012],

**Function:** disease:Genetic variation in TLR4 is associated with age-related macular

degeneration type 10 (ARMD10) [MIM:611488]. ARMD is a multifactorial eye disease and the most common cause of irreversible vision loss in the developed world. In most patients, the disease is manifest as ophthalmoscopically visible yellowish accumulations of protein and lipid that lie beneath the retinal pigment

epithelium and within an elastin-containing structure known as Bruch

membrane.,domain:The TIR domain mediates interaction with

NOX4.,function:Cooperates with LY96 and CD14 to mediate the innate immune response to bacterial lipopolysaccharide (LPS). Acts via MYD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the

inflammatory response.,polymorphism:Allele TLR4\*B (Gly-299, Ile-399) is associated with a blunted response to inhaled LPS.,PTM:N-glycosylated.

Glycosylation of Asn-526 an

Subcellular Location : Cell membrane; Single-pass type I membrane protein. Early endosome. Cell projection, ruffle. Upon complex formation with CD36 and TLR6, internalized through dynamin-dependent endocytosis (PubMed:20037584). Colocalizes with RFTN1 at cell membrane and then together with RFTN1 moves to endosomes,

upon lipopolysaccharide stimulation. .

**Expression:** Highly expressed in placenta, spleen and peripheral blood leukocytes

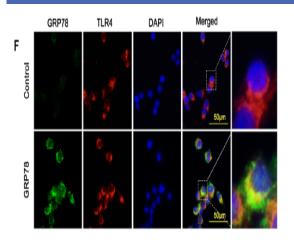
(PubMed:9435236, PubMed:9237759). Detected in monocytes, macrophages,

dendritic cells and several types of T-cells (PubMed:9237759,

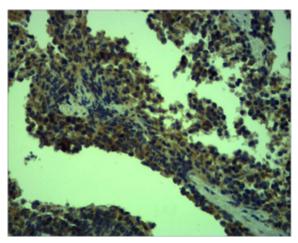


PubMed:27022195).

## **Products Images**



Disturbance of neuron–microglia crosstalk mediated by GRP78 in Neuropsychiatric systemic lupus erythematosus mice. Ling Qin IHC,IF Mouse 1:200 brain tissue BV2 cell



Immunohistochemical analysis of paraffin-embedded Mouse Spleen Tissue using TLR4 Polyclonal Antibody.