# Recombinant Mouse Toll-like receptor 4 (Tlr4), partial,Yeast

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| **Product Code** | CSB-YP023603MO |
| **Relevance** | 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. Also involved in LPS-independent inflammatory responses triggered by free fatty acids, such as palmitate. In complex with TLR6, promotes sterile inflammation in monocytes/macrophages in response to oxidized low-density lipoprotein (oxLDL) or amyloid-beta 42. In this context, the initial signal is provided by oxLDL- or amyloid-beta 42-binding to CD36. This event induces the formation of a heterodimer of TLR4 and TLR6, which is rapidly internalized and triggers inflammatory response, leading to the NF-kappa-B-dependent production of CXCL1, CXCL2 and CCL9 cytokines, via MYD88 signaling pathway, and CCL5 cytokine, via TICAM1 signaling pathway, as well as IL1B secretion. Binds electronegative LDL (LDL-) and mediates the cytokine release induced by LDL |
| **Abbreviation** | Tlr4 |
| **Storage** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |
| **Uniprot No.** | Q9QUK6 |
| **Alias** | CD_antigen: CD284 |
| **Product Type** | Recombinant Protein |
| **Immunogen Species** | Mus musculus (Mouse) |
| **Purity** | Greater than 90% as determined by SDS-PAGE. |
| **Lead Time** | Delivery time may differ from different purchasing way or location, please kindly consult your local distributors for specific delivery time. |
| **Research Area** | Immunology |
| **Source** | Yeast |
| **Gene Names** | Tlr4 |
| **Protein Names** | Recommended name: Toll-like receptor 4Alternative name(s): CD_antigen= CD284 |
| **Expression Region** | 26-638aa |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| **Tag Info** | N-terminal 6xHis-tagged |
| **Mol. Weight** | 71.5kDa |

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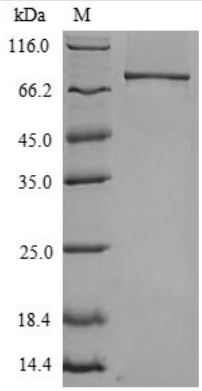
| **Protein Description** | Partial |

**Image**




(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

**Description**

The sequence encoding the 26-638aa of the Mouse Toll-like receptor 4 (Tlr4) was expressed in the yeast. Each product has fused a 6xHis-tag at the N-terminus for purification. The recombinant truncated mouse Tlr4 protein was purified by SDS-PAGE and got a purity of over 90%. The Tlr4 protein migrated to a molecular weight of about 75 kDa on the reducing SDS-PAGE gel. In addition to specific antibody production, this protein may be used in the immunological studies involved in Tlr4.

Tlr4 is a major pathogen recognition receptor (PRR) expressed on the cell surface of several immune cells including macrophages and dendritic cells. It is the exclusive family member that signals through both MYD88-dependent and MYD88-independent, TRIF-dependent pathways. Tlr4 signalings mediated via the above two manners are involved in the production of proinflammatory cytokines and the induction of the full innate immune response, respectively. Besides, Tlr4 is also associated with the pathogenesis of pro-inflammatory based diseases such as multiple sclerosis (MS).

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.