

# Mouse TLR3 / CD283 Protein (His Tag)

Catalog Number: 50161-M08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

AI957183; Tlr3

### Protein Construction:

A DNA sequence encoding the extracellular domain of mouse TLR3 (NP\_569054.2) (Met 1-Leu 705) was expressed with a C-terminal polyhistidine tag.

**Source:** Mouse

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 97 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Thr 26

### Molecular Mass:

The secreted recombinant mouse TLR3 consists of 691 amino acids and has a calculated molecular mass of 78.7 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 100-110 kDa protein in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

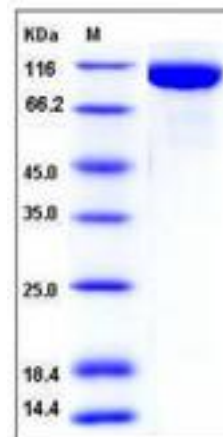
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Toll-like receptor 3 (TLR3) also known as CD283 (cluster of differentiation 283) is a member of the Toll-like receptor family of pattern recognition receptors of the innate immune system. TLR3/CD283 plays a fundamental role in pathogen recognition and activation of innate immunity. TLR3 is a nucleotide-sensing TLR which is activated by double-stranded RNA, a sign of viral infection. 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.

## References

1. Muzio M, *et al.* (2000) Differential expression and regulation of toll-like receptors (TLR) in human leukocytes: selective expression of TLR3 in dendritic cells. *J Immunol.* 164(11): 5998-6004.
2. Doyle S, *et al.* (2002) IRF3 mediates a TLR3/TLR4-specific antiviral gene program. *Immunity.* 17(3): 251-63.
3. Choe J, *et al.* (2005) Crystal structure of human toll-like receptor 3 (TLR3) ectodomain. *Science.* 309(5734): 581-5.

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