Human TLR2 / CD282 Protein (aa 1-587, His Tag)

Catalog Number: 10061-H08B

General Information

Gene Name Synonym:

CD282; TIL4

Protein Construction:

A DNA sequence encoding the human TLR2 (O60603) extracellular domain (Met 1-Arg 587) was expressed, with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 85 % 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 ℃

Predicted N terminal: Lys 19

Molecular Mass:

The secreted recombinant human TLR2 consists of 580 amino acids and predicts a molecular mass of 65.8kDa.

Formulation:

Lyophilized from sterile 20 mM Tris, 300 mM NaCl, 10% glycerol, pH 7.5.

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:

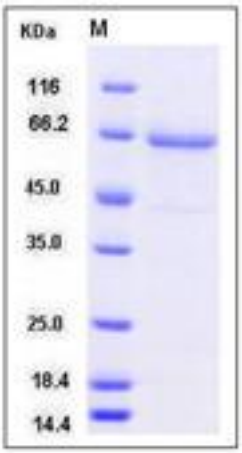
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

TLR2, also known as CD282, is a member of the Toll-like receptor (TLR) family. TLRs are highly conserved from Drosophila to humans and share structural and functional similarities. They play a fundamental role in pathogen recognition and activation of innate immunity. 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. TLR2 contains 14 LRR (leucine-rich) repeats and 1 TIR domain. TLR2 gene is expressed most abundantly in peripheral blood leukocytes, and mediates host response to Gram-positive bacteria and yeast via stimulation of NF-kappaB. CD282 cooperates with LY96 to mediate the innate immune response to bacterial lipoproteins and other microbial cell wall components. It also cooperates with TLR1 to mediate the innate immune response to bacterial lipoproteins or lipopeptides. CD282 acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. It may also promote apoptosis in response to lipoproteins.

References

1.Do KN, *et al*. (2012) TLR2 controls intestinal carcinogen detoxication by CYP1A1. PLoS ONE. 7 (3): e32309. 2.Dziarski R, *et al*. (2001) Role of MD-2 in TLR2- and TLR4-mediated recognition of Gram-negative and Gram-positive bacteria and activation of chemokine genes. J Endotoxin Res. 6 (5): 401-5. 3.Lorenz E, (2007) TLR2 and TLR4 expression during bacterial infections. Curr Pharm Des. 12 (32): 4185-93.