Recombinant Rat TLR4 Protein(Fc Tag)

Catalog Number: PDMR100059

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

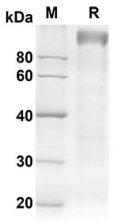
Description

Species	Rat
Source	Mammalian-derived Rat TLR4 proteins Asn26-Lys629, with an C-terminal Fc
Mol_Mass	91.3 kDa
Accession	Q9QX05
Bio-activity	Not validated for activity

Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Rat TLR4 proteins, 2 μg/lane of Recombinant Rat TLR4 proteins was resolved with an SDS-PAGE under reducing conditions, showing bands at 91.3 KD

Background

TLR4, also known as TLR-4, 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. TLR4 is most abundantly expressed in placenta, and in myelomonocytic subpopulation of the leukocytes. TLR 4 has also been designated as CD284 (cluster of differentiation 284). It has been implicated in signal transduction events induced by lipopolysaccharide (LPS) found in most gram-negative bacteria. TLR4 Cooperates with LY96 and CD14 to mediate the innate immune response to bacterial lipopolysaccharide (LPS). It acts via MYD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. It is also involved in LPS-independent inflammatory responses triggered by Ni(2+).

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