



Recombinant Protein Technical Manual  
Recombinant Human TLR4/CD284 Protein (His Tag)  
RPES1421

#### Product Data:

**Product SKU:** RPES1421

**Size:** 50µg

**Species:** Human

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** O00206

#### Protein Information:

**Molecular Mass:** 70.5 kDa

**AP Molecular Mass:** 68 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 87 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** ARMD10;CD284;TLR-4;TLR4;TOLL

## Immunogen Information:

**Sequence:** Met 1-Lys631

## 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+).