



Recombinant Protein Technical Manual

**Recombinant Human TLR2/CD282 Protein (aa 1-587,
His Tag)**
RPES2496

Product Data:

Product SKU: RPES2496

Size: 50µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: O60603

Protein Information:

Molecular Mass: 65.8kDa

AP Molecular Mass: 65.8 kDa

Tag: C-His

Bio-activity:

Purity: > 85 % 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: CD282;TIL4

Immunogen Information:

Sequence: Met 1-Arg 587

Background:

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.