Recombinant TLR1 protein (His tag)

Catalog Number	540338
Synonyms	Toll/interleukin-1 receptor-like protein; TIL; CD antigen CD281
Species	Human
Expression System	E. coli
Accession	Q15399
Molecular Weight	Predictes a molecular mass of 23.73 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	602-786
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 602-786 aa (Q15399) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human TLR1 (Toll-like receptor 1) Fragment (aa 602-786) is a high-purity protein designed for studying innate immune responses. This fragment fully encompasses the TIR domain, making it an ideal tool for investigating intracellular signaling mechanisms mediated by TLR1 in response to bacterial lipopeptides. Toll-like receptor 1 (TLR1) participates in the innate immune response to microbial agents by specifically recognizing diacylated and triacylated lipopeptides. It cooperates with TLR2 to mediate immune responses to bacterial lipoproteins, forming activation clusters that trigger signaling from the cell surface. TLR1 acts through MYD88 and TRAF6 pathways, leading to NF-kappa-B activation, cytokine secretion, and inflammatory responses. The protein localizes to the cell membrane, cytoplasmic vesicles, phagosome membranes, membrane rafts, and Golgi apparatus, with recruitment to lipid rafts occurring upon microbial ligand stimulation. This strategic localization enables TLR1 to coordinate immune signaling from multiple cellular compartments.