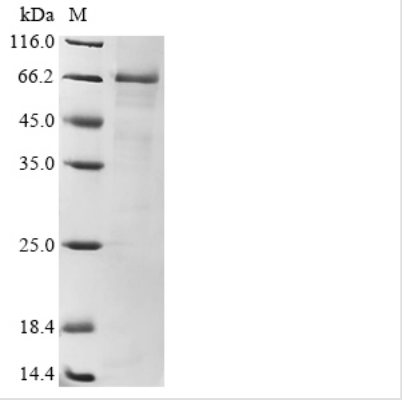
Recombinant Human Toll-like receptor 4 (TLR4), partial

Product Code	CSB-EP023603HU1
Abbreviation	Recombinant Human TLR4 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	O00206
Storage Buffer	Tris-based buffer,50% glycerol
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	EPCVEVVPNITYQCMELNFYKIPDNLPFSTKNLDLSFNPLRHLGSYSFFSFPEL QVLDLSRCEIQTIEDGAYQSLSHLSTLILTGNPIQSLALGAFSGLSSLQKLVAVE TNLASLENFPIGHLKTLKELNVAHNLIQSFKLPEYFSNLTNLEHLDLSSNKIQSIY CTDLRVLHQMPLLNLSLDLSLNPMNFIQPGAFKEIRLHKLTLRNNFDSLNVMKT CIQGLAGLEVHRLVLGEFRNEGNLEKFDKSALEGLCNLTIEEFRLAYLDYYLDDI IDLFNCLTNVSSFSLVSVTIERVKDFSYNFGWQHLELVNCKFGQFPTLKLKSLK RLTFTSNKGGNAFSEVDLPSLEFLDLSRNGLSFKGCCSQSDFGTTSLKYLDLS FNGVITMSSNFLGLEQLEHLDFQHSNLKQMSEFSVFLSLRNLIYLDISHTHTRV AFNGIFNGLSSLEVLKMAGNSFQENFLPDIFTELRNLTFLDLSQCQLEQLSPTA FNSLSSLQVLNMSHNNFFSLDTFPYKCLNSLQVLDYSLNHIMTSKKQELQHFP SSLAFLNLTQNDFACTCEHQSFLQWIKDQRQLLVEVERMECATPSDKQGMPV LSLNITCQMNK
Research Area	Cardiovascular
Source	E.coli
Target Names	TLR4
Expression Region	27-631aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged
Mol. Weight	72.4 kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Amino acids 27-631 form the expressed segment for recombinant Human TLR4. The expected molecular weight for the TLR4 protein is calculated to be 72.4 kDa. Expression of this TLR4 protein is conducted in e.coli. The TLR4 coding gene included the N-terminal 10xHis tag, which simplifies the detection and purification processes of the recombinant TLR4 protein in following stages of expression and purification.

Toll-like receptor 4 (TLR4) is a crucial member of the Toll-like receptor family, playing a central role in the innate immune system. TLR4 is primarily expressed on the surface of immune cells, such as macrophages and dendritic cells, and recognizes specific molecular patterns associated with pathogens, particularly lipopolysaccharides (LPS) found in the outer membrane of gram-negative bacteria. Upon ligand binding, TLR4 undergoes conformational changes, leading to the activation of downstream signaling pathways, including the MyD88-dependent and TRIF-dependent pathways. This activation results in the production of pro-inflammatory cytokines, type I interferons, and the upregulation of co-stimulatory molecules, essential for coordinating immune responses against infections. TLR4 is not only involved in host defense against pathogens but is also implicated in the pathogenesis of various inflammatory diseases. Research on TLR4 focuses on understanding its signaling mechanisms, identifying novel ligands, and exploring its potential as a therapeutic target for modulating immune responses in infectious and inflammatory conditions.

Shelf Life

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