

Recombinant Human TLR4

Cat. No. TLR4-29825TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment of Human TLR4 with a proprietary tag; predicted mwt: 34.21 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	78 amino acids
Description	The protein encoded by this gene 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. The various TLRs exhibit different patterns of expression. This receptor is most abundantly expressed in placenta, and in myelomonocytic subpopulation of the leukocytes. It has been implicated in signal transduction events induced by lipopolysaccharide (LPS) found in most gram-negative bacteria. Mutations in this gene have been associated with differences in LPS responsiveness. Also, several transcript variants of this gene have been found, but the protein coding potential of most of them is uncertain.
Molecular Weight	34.210kDa inclusive of tags
Tissue specificity	Highly expressed in placenta, spleen and peripheral blood leukocytes. Detected in

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	monocytes, macrophages, dendritic cells and several types of T-cells.
Form	Liquid
Purity	Proprietary Purification
Storage buffer	pH: 8.00 Constituents: 0.31% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	PMNFIQPGAFKEIRLHKLTLRNNFDSLNVMTCTCIQGLAGLEVHRLVLGFEFRNEGNLE KFDKSALEGLCNLTIEEFRLA
Sequence Similarities	Belongs to the Toll-like receptor family. Contains 18 LRR (leucine-rich) repeats. Contains 1 LRRCT domain. Contains 1 TIR domain.

GENE INFORMATION

Gene Name	TLR4 toll-like receptor 4 [Homo sapiens]
Official Symbol	TLR4
Synonyms	TLR4; toll-like receptor 4; CD284; hToll;
Gene ID	7099
mRNA Refseq	NM_138554
Protein Refseq	NP_612564

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Uniprot ID	O00206
Chromosome Location	9q33.1
Pathway	Activated TLR4 signalling, organism-specific biosystem; Activation of IRF3/IRF7 mediated by TBK1/IKK epsilon, organism-specific biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Chagas disease (American trypanosomiasis), organism-specific biosystem;
Function	lipopolysaccharide binding; lipopolysaccharide binding; lipopolysaccharide receptor activity; phosphatidylinositol 3-kinase binding; protein binding;

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