

## Recombinant Human Toll-like Receptor 3

Cat. No. TLR3-975H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human TLR-3 produced in 293 cells is 77.0 kDa glycoprotein containing 681 residues which comprise the TLR-3 extracellular domain.
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>Description</b>	<p>TLR-3 is a single-pass type I receptor that binds to and signals the presence of microbial pathogens and double stranded RNA (dsRNA) viruses. Signaling through TLR-3 can promote the NF-<math>\kappa</math>B pathway to initiate innate and adaptive immune responses to bacterial and viral infections, as well as the p53 pathway to trigger apoptosis in cells infected with dsRNA viruses. TLR-3 belongs to a family of structurally-related toll-like receptors (TLRs) containing an N-terminal domain rich in leucine repeats and a C-terminal intracellular Toll/interleukin (IL)-1 (TIL) domain. TLR-3 is expressed primarily in dendritic cells of the placenta and pancreas where it can reside on both sides of the plasma membrane and in the endosomal compartment of the cells.</p>
<b>Purity</b>	95 % (SDS-PAGE, HPLC).
<b>Endotoxin level</b>	< 0.1 ng per $\mu$ g of TLR-3.
<b>Stabilizer</b>	None.
<b>Formulation</b>	Lyophilized.

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**Biologically Activity** Determined by its ability to inhibit IL-8 secretion induced by Poly I:C in the TLR3 receptor-expressing HEK293 cells (HEK293 TLR3r). The ED50 for this effect is  $\leq 30$   $\mu\text{g/ml}$  in the presence of 100  $\mu\text{g/ml}$  of Poly I:C.

**Stability** The lyophilized protein is stable for at least 2 years from date of receipt at  $-20^{\circ}\text{C}$ . Reconstituted TLR-3 is stable for at least 3 months when stored in working aliquots with a carrier protein at  $-20^{\circ}\text{C}$ . Avoid repeated freeze-thaw cycles.

## GENE INFORMATION

**Gene Name** [TLR3 toll-like receptor 3 \[ Homo sapiens \]](#)

**Synonyms** TLR3; toll-like receptor 3; CD283

**Gene ID** [7098](#)

**mRNA Refseq** [NM\\_003265](#)

**Protein Refseq** [NP\\_003256](#)

**MIM** [603029](#)

**UniProt ID** [O15455](#)

**Chromosome Location** 4q35

**pathway** Toll-like receptor signaling pathway

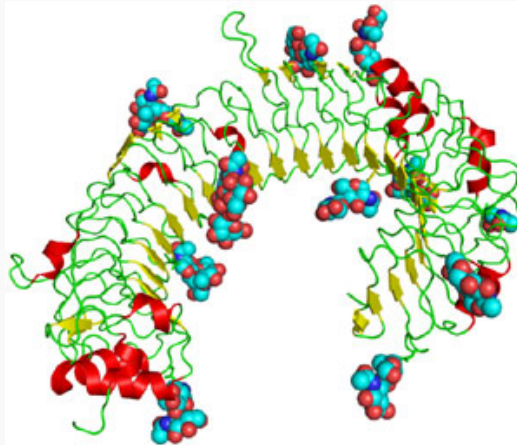
**Function** double-stranded RNA binding; protein binding; transmembrane receptor activity

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The structure of  
TLR3 covered with  
sugars



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