

Product datasheet for AM26184FC-N

TLR4 Mouse Monoclonal Antibody [Clone ID: 7E3]

Product data:

Product Type: Primary Antibodies

Clone Name: 7E3
Applications: FC

Recommended Dilution: Flow cytometry (typical starting working dilution is 1:50).

Inhibits the biological activity of the TLR4/MD-2 complex.

Reactivity: Human
Host: Mouse
Isotype: IgG1

Clonality: Monoclonal

Immunogen: TLR4/MD-2 expressing CHO cells/ chimeric TLR4/MD-2 fusion protein

Specificity: This antibody reacts with the TLR4/MD-2 complex.

Formulation: PBS

Label: FITC

State: Liquid 0.2 µm filtered lg fraction Stabilizer: 1% bovine serum albumin Preservative: 0.02% sodium azide

Concentration: lot specific **Purification:** Protein G

Conjugation: FITC

Storage: Store at 2 - 8 °C.

Stability: Shelf life: one year from despatch.

Gene Name: toll like receptor 4

Database Link: Entrez Gene 7099 Human

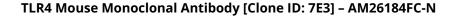
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Background: TLRs belong to a family of proteins that specifically recognizes and senses microbial products.

They are highly conserved throughout evolution and act as innate immune recognition receptors against many pathogens. TLR4 is a functional receptor for gram-negative bacterial lipopolysaccharides (LPS). TLR4 associates with MD-2 which is absolutely required for LPS-induced activation of TLR4.MD-2 exists as a cell surface protein in association with TLR4. It also exists as secreted forms consisting of MD-2 monomers and multimers (sMD-2). Circulating sMD-2 is mainly present as a doublet of ~20 and 25 kD, representing differentially glycosylated forms. Unlike TLR4, sMD-2 binds directly LPS without the need of soluble CD14 (sCD14). However, LPS-MD-2 interactions are increased when LPS is pretreated with CD14. Only monomeric sMD-2 is biologically active and able to associate with TLR4 and LPS. sMD-2 circulates in plasma of healthy individuals as a non-active, polymeric protein. In septic plasma, the total amount of sMD-2 was strongly elevated and contained both sMD-2 polymers and monomers. Soluble MD-2 is proposed to be an important mediator of organ inflammation during sepsis. During experimental human endotoxemia, the monomeric and total sMD-2 content in plasma increased with the kinetics of an acute phase protein. This parallels enhanced TLR4 costimulatory activity. In vitro studies revealed that sMD-2 release appears to

Synonyms: Toll-like receptor 4

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Pathogenic Escherichia coli infection, Toll-like receptor signaling pathway

be restricted to endothelial and dendritic cells.