

Active Recombinant Mouse Tlr4 Protein, Fc-tagged

Cat. No. Tlr4-02M Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse TLR4 (Asn26-Lys629) protein with a mouse IgG2a (Glu98-Lys330) Fc tag was expressed in chinese hamster ovary cell line.
Species	Mouse
Source	CHO
ProteinLength	26-629
Description	This gene belongs to the evolutionarily-conserved Toll-like receptor family, whose members are type-1 transmembrane proteins that are involved in innate immunity. Toll-like receptors are characterized by an extracellular leucine-rich repeat domain that functions in ligand recognition and an intracellular toll/interleukin-1 receptor-like domain that is crucial for signal transduction. The receptor encoded by this gene mediates the innate immune response to bacterial lipopolysaccharide, a major component of the outer membrane of Gram-negative bacteria, through synthesis of pro-inflammatory cytokines and chemokines. In addition, this protein can recognize other pathogens from Gram-negative and Gram-positive bacteria as well as viral components. Mice deficient in this gene display a number of immune response-related phenotypes including hyporesponsiveness to bacterial lipopolysaccharide and increased levels of respiratory syncytial virus compared to controls.
Form	Disulfide-linked homodimer
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Mouse

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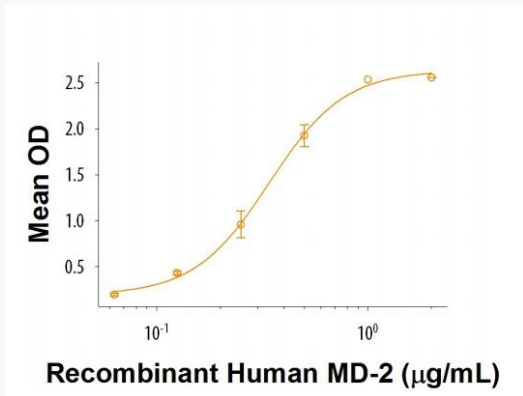
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	TLR4 Fc Chimera is immobilized at 2 µg/mL, 100 µL/well, the concentration of Recombinant Human MD-2 that produces 50% of the optimal binding response is approximately 0.15-0.9 µg/mL
Molecular Mass	96 kDa
N-terminal Sequence Analysis	Asn26
Endotoxin	< 0.10 EU/µg of the protein by the LAL method.
Purity	> 90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Storage Buffer	Lyophilized from a 0.2 µm filtered solution in PBS.
Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped with polar packs.
GENE INFORMATION	
Gene Name	Tlr4 toll-like receptor 4 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Tlr4

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Synonyms	Tlr4; toll-like receptor 4; Lps; Ras; Ly87; Ran/M1; Rasl2-8; toll-like receptor 4; Toll like receptor 4; lipopolysaccharide response; EC 3.2.2.6
Gene ID	21898
mRNA Refseq	NM_021297
Protein Refseq	NP_067272
UniProt ID	Q9QUK6
Bioactivity	 When Recombinant Mouse TLR4 Fc Chimera is coated at 2 µg/mL (100 µL/well), Recombinant Human MD-2 binds with a typical ED50 of 0.15-0.9 µg/mL.