Recombinant Mouse TLR11 Fc Chimera

Catalog Number: 7640-TR

DESCRIPTION

Source

Chinese Hamster Ovary cell line, CHO-derived

N-terminal Sequence Analysis	Starts at Trp31
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	105.6 kDa (monomer)

SPECIFICATIONS

SDS-PAGE	115-135 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant *T. gondii* Profilin is immobilized at 5 µg/mL (100 µL/well), the concentration of Recombinant Mouse TLR11 Fc Chimera that produces 50% of the optimal binding response is approximately 1-5 µg/mL.
Endotoxin Level	<0.01 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in PBS.
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

TLR11 is a type I transmembrane receptor of the Toll-like receptor family that is primarily expressed in epithelial cells in the liver, kidney, bladder and intestines, as well as in dendritic cells and macrophages (1-3). The 926 amino acid (aa) mouse TLR11 transcript encodes a 30 aa signal sequence, a 691 aa extracellular domain (ECD) with 10 leucine-rich repeats and 9 potential N-glycosylation sites, a 21 aa transmembrane domain, and a 184 aa cytoplasmic domain with a TIR domain (1). Within the ECD, mouse and rat TLR11 share 86% aa sequence identity. Human TLR11 is a pseudogene that is not expressed. Some researchers have found TLR11 in the dendritic cell plasma membrane, where it cooperates with MyD88 to take up antigen and initiate cell signaling (3-5). Others have found it in the endoplasmic reticulum (ER), where it interacts with the multispan ER protein UNC93B1 (6). TLR11 recognizes profilin proteins on *Toxoplasma gondii* and other intracellular parasites (3, 7). Binding of profiln activates dendritic cell subsets to expand, mature, produce IL-12, and present antigenic profilin peptides to T cells (2-4). TLR11 is also reported to recognize pathogenic bacteria in the urinary tract (1). In the intestines, it is expressed on M cells, where its recognition of pathogenic salmonella blocks their entry into Peyer's patches (8). TLR11 allows mice to be resistant to *Salmonella typhi*, the organism causing typhoid fever, while humans are sensitive (9).

References:

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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
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