

Validation data for Polymyxin B

<https://www.invivogen.com/polymyxin-b>

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Version 22F14-AK

Polymyxin B is a cyclic cationic polypeptide antibiotic produced by the soil bacterium *Paenibacillus polymixa*. It inhibits lipopolysaccharide (LPS)-induced Toll-like receptor 4 (TLR4) activation through binding to the toxic component of LPS, lipid A. The neutralizing effect of polymyxin B on LPS and subsequently, the suppression of human (h)TLR4 signaling was validated using InvivoGen's HEK Blue™ hTLR4 reporter cells (**Figure 1**). These cells stably express the TLR4, MD2 and CD14 genes as well as an NF- κ B-inducible SEAP (secreted embryonic alkaline phosphatase) reporter gene.

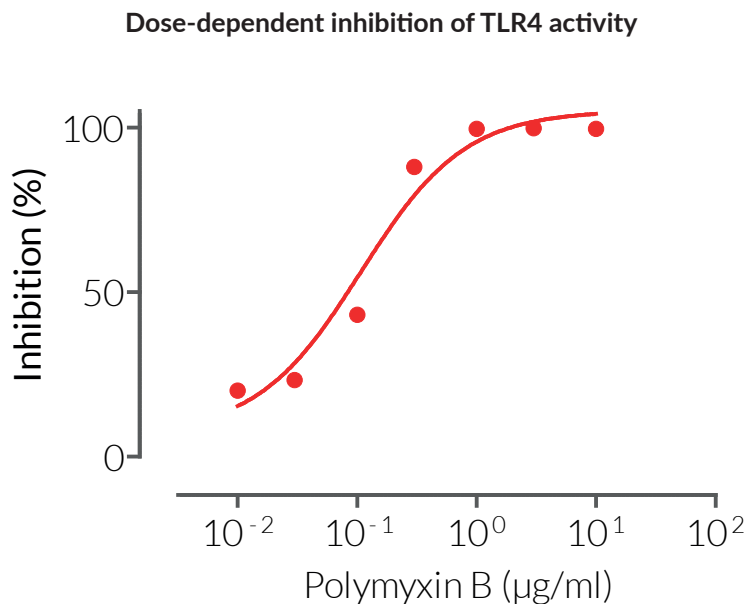


Figure 1: Polymyxin B is a potent inhibitor of the TLR4 signaling pathway.

HEK Blue™ hTLR4 cells were incubated in the presence of increasing concentrations of polymyxin B together with 1 ng/ml LPS-EK Ultrapure (TLR4 agonist) overnight at 37°C. The next day, the neutralizing activity of polymyxin B was determined by measuring the reduction of SEAP production in the supernatant using the QUANTI-Blue™ Solution detection reagent. Data are shown in percentage (%) of inhibition.

TECHNICAL SUPPORT

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