Validation data for LPS-RS (Standard)

https://www.invivogen.com/lps-rs

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Version 23F14-AK

Lipopolysaccharide (LPS)-RS from the photosynthetic bacterium *Rhodobacter sphaeroides* is a potent antagonist of LPS from pathogenic bacteria. It does not induce TLR4 signaling but is detected by the LAL assay, the standard endotoxin detection assay. The standard LPS-RS preparation is extracted by a phenol-water mixture. It contains other bacterial components, such as lipoproteins, and therefore stimulates TLR2 **(Figure 1)** while inhibiting LPS-inducedTLR4 activation **(Figure 2)**, as verified using InvivoGen's HEK-Blue™ hTLR2 and HEK-Blue™ hTLR4 cells.

Dose-dependent activation of TLR2 and TLR4

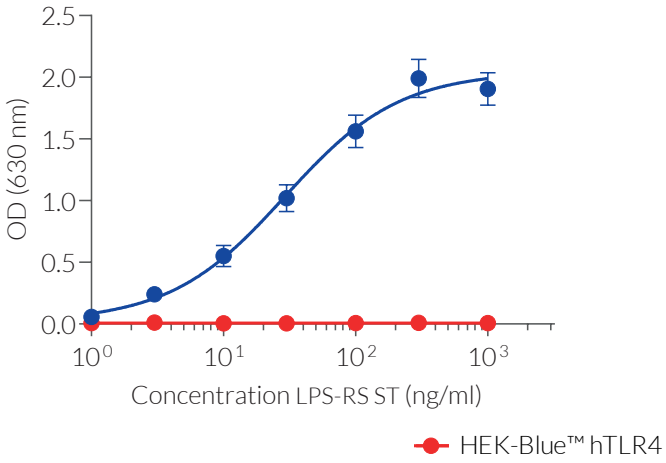

Figure 1. LPS-RS Standard (ST) is a potent activator of human (h)TLR2. The cells were incubated with increasing concentrations of LPS-RS ST. After overnight incubation in HEK-Blue™ detection medium, a SEAP detection growth medium, the response of hTLR2 and hTLR4 was assessed by determining the presence of SEAP in the supernatant. Data are expressed as optical density at 630 nm (±SEM).

Dose-dependent inhibition of LPS-induced TLR4 activation

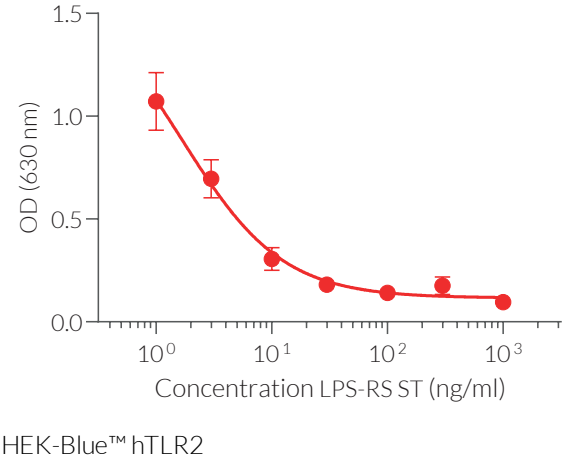

Figure 2. LPS-RS ST is a potent antagonist of LPS-EK Ultrapure (UP). The cells were treated with 0.3 ng/ml LPS-EK UP and increasing concentrations of LPS-RS ST. After overnight incubation, the inhibition of LPS-induced hTLR4 activation was assessed by determining the presence of SEAP in the supernatant using QUANTI-Blue™ Solution. Data are expressed as optical density at 630 nm (±SEM).

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