

Validation data for LPS-EB Biotin

<https://www.invivogen.com/lps-eb-biotin>

For research use only

Version 23F20-AK

LPS-EB Biotin is a biotinylated preparation of a smooth (s)-form lipopolysaccharide (LPS) purified from the Gram-negative *E. coli* O111:B4, a pathogenic serotype of *E. coli* known to cause significant gastric disease. In this product, biotin has been bound to LPS's oxidized-carbohydrates using biotin-LC-hydrazide. The labeled ligand retains the biological activity of LPS. LPS-EB Biotin can be used for the detection of LPS binding sites by cytometry (Figure 1) or fluorescence microscopy (data not shown). It is provided in an Ultrapure (UP) grade, therefore it only activates TLR4, as verified using InvivoGen's HEK-Blue™ hTLR2 and HEK Blue™ hTLR4 cells (Figure 2).

Intracellular detection of LPS-EB Biotin

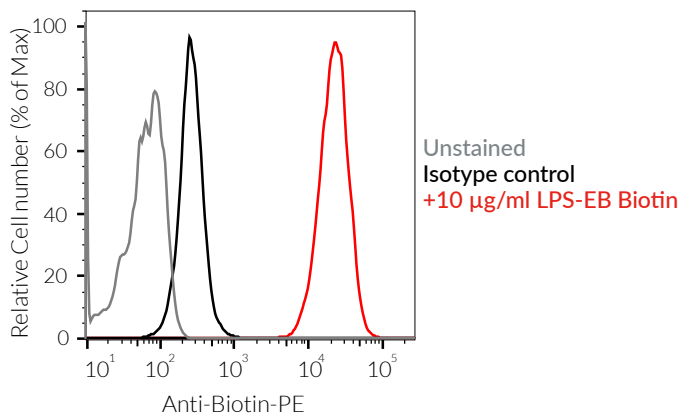


Figure 1. Intracellular detection of LPS-EB Biotin. RAW-Blue™ cells were incubated with LPS-EB Biotin for 16h - 24h. After, the cells were fixed and permeabilized, following the incubation with an Anti-Biotin-PE secondary antibody. The intracellular staining was analyzed by flow cytometry.

Dose-dependent response of TLR2 and TLR4

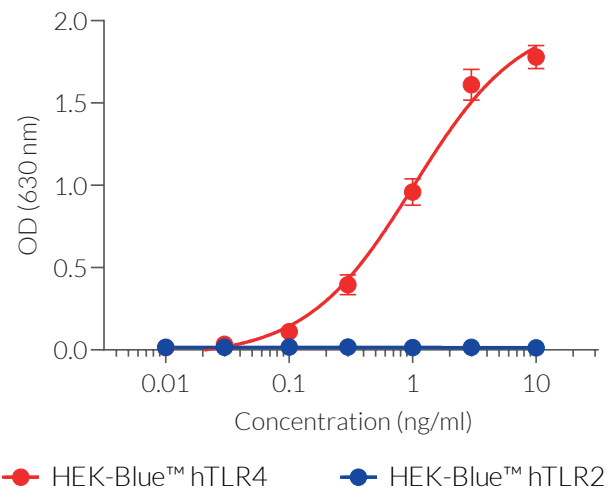


Figure 2. LPS-EB Biotin is a potent activator of human (h)TLR4. The cells were incubated with increasing concentrations of LPS-EB Biotin. After overnight incubation in HEK-Blue™ detection medium, a SEAP detection growth medium, the response of hTLR2 and hTLR4 was assessed by determining the presence of SEAP in the supernatant. Data are expressed as optical density at 630 nm (±SEM).

TECHNICAL SUPPORT

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