**Polymyxin B**

An inhibitor of LPS-induced activation of TLR4

Catalog # tlrl-pmb

For research use only

Version # 09E27-MM

**METHODS**

**Preparation of stock solution (50 mg/ml)**

Inhibition of LPS-induced activation of TLR4 can be achieved with 10-100 µg/ml Polymyxin B.

- Add 2 ml water and vortex for 30 seconds or until complete solubilization.
- Filter sterilize and store at 4°C.

**Polymyxin B inhibition** (*in vitro* use)

- Transfect your cell line with an NF-κB reporter plasmid (see related products, pNiFty). If your cell line does not naturally express TLR4/MD2 (and CD14) genes, cotransfect with TLR4/MD2 (-CD14) expressing plasmids, such as pDUO-TLR4/MD2 or pUNO-TLR4 and pDUO-MD2/CD14.
- Twenty-four to forty-eight hours after transfection, stimulate cells with 10 ng-1 µg/ml LPS and 10-100 µg/ml PMB for 6 to 24 hours.
- Determine LPS inhibition by PMB on TLR4 by assessing reporter gene expression using the appropriate detection system.

**References**


**PRODUCT INFORMATION**

**Content:**

- 100 mg Polymyxin B (Sulfate)

**Storage and stability:**

- Polymyxin B is shipped at room temperature. Store at 4°C. Product as powder form is stable 6 months at 4°C.
- Upon resuspension, Polymyxin B should be stored at 4°C. Resuspended product is stable for 1 month at 4°C.

**DESCRIPTION**

Polymyxin B (PMB) is a cyclic cationic polypeptide antibiotic produced by the soil bacterium *Paenibacillus polymixa*. PMB blocks the biological effects of Gram negative lipopolysaccharide (LPS) through binding to lipid A, the toxic component of LPS, which is negatively charged. The neutralizing effect of PMB on LPS is dose-related and specific for LPS. Polymyxin B is widely used to eliminate the effects of endotoxin contamination, both *in vitro* and *in vivo*.

**CHEMICAL CHARACTERISTICS**

**Case number:** 1405-20-5

**Formula:** C56H100N16O17S

**Molecular weight:** 1301.56

**Appearance:** white to yellow color

**Solubility:** Water (50 mg/ml)

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**TECHNICAL SUPPORT**

InvivoGen USA (Toll-Free): 888-457-5873
InvivoGen USA (International): +1 (858) 457-5873
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