

Ver.250601

Lipopolysaccharides (From E coli 055:B5)

Cat. No: L8880

Specification: 10mg; 100mg

Storage: Store at 2-8°C, 3 years

Appearance: White freeze-dried powder

Purity: ≥98%

Solubility: 5mg/mL Water, Produces a light yellow, turbid solution.

Product Description

LPS is a complex of lipids and polysaccharides, which is the main component of the cell wall of Gram-negative bacteria. It is located in the outermost layer of the cell wall and exposed to the cell surface of non-capsular bacteria. It is beneficial to maintain the integrity of the extracellular membrane and protect bacteria from bile salts and lipid antibiotics. Structurally, LPS is composed of lipid A, core polysaccharide, and O-polysaccharide side chains. Among them, lipid A is the main component of bacterial endotoxin and determines its toxicity. However, the O-polysaccharide side chains are highly variable among different bacteria, and the specificity determines the bacterial serotype.

Purpose

LPS can activate B cells and produce polyclonal antibodies. Promoting the maturation of T cells; Activation of macrophages and NK cells; Interferon, tumor necrosis factor (TNF), colony-stimulating factor (CSF), interleukin-6 and other immunomodulatory factors were induced.

Method of use

1. LPS powder is non-sterile and needs to be filtered to remove bacteria for cell culture related experiments. The storage solution of LPS: 1mg LPS is resuspended in 1mL sterile balanced salt solution or cell culture medium, and gently shaken until the powder is completely dissolved, that is, 1mg/mL storage solution is obtained. This stock solution can be further diluted with sterile balanced salt or cell culture medium to the desired working concentration.
2. Preservation of LPS storage solution: This storage solution (1mg/mL) can be stored at 4°C for about one month and is stable; it can also be divided into a single dose and put into -20°C for 2 years. Avoid repeated freezing and thawing.

Note:

- 1) LPS solution should be stored in silanized containers, because LPS can be adsorbed on plastic or some glassware, especially when its concentration is < 0.1mg/mL. However, when the concentration of LPS was greater than 1mg/mL, the above adsorption was negligible.
- 2) If using glassware, the LPS solution should be vortexed for at least 30minutes to redissolve the adsorbed solute.

For further details, contact us at

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