SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

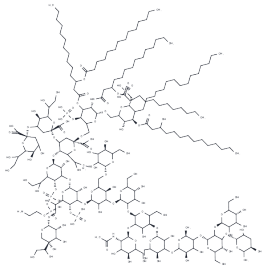
linkedin.com/company/szaboscandic

Data Sheet (Cat.No.T11855)

TargetMol

Lipopolysaccharides

Chemical Properties



CAS No. :

Formula: C205H366N3O117P5

Molecular Weight: 4899.92

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Lipopolysaccharides (LPS) derived from Escherichia coli 055:B5, are a unique component of the cell wall of Gram-negative bacteria. They are composed of three regions: lipid A, oligosaccharide core, and O-specific polysaccharide (O-antigen). Lipopolysaccharides help maintain the integrity of the cell outer membrane and protect bacteria from damage by bile salts and lipid antibiotics. Lipopolysaccharides are highly immunogenic antigens that can enhance immune responses and can be used to construct inflammatory models.
Targets(IC50)	Others
In vitro	**METHODS**: Human lung mucoepidermoid carcinoma cells H292 and monocytes THP-1 were treated with Lipopolysaccharides (1-20 μg/mL) for 6-48 h. Cytotoxicity was detected by MTT. **RESULTS**: No significant changes in the viability of H292 cells treated with 1 and 2.5 μg/mL Lipopolysaccharides and THP-1 cells treated with 1 and 2 μg/mL Lipopolysaccharides were observed. Lipopolysaccharides at higher concentrations (5-20 μg/mL) were significantly cytotoxic to both H292 and THP-1 cells. [1] **METHODS**: Human induced pluripotent stem cell-derived cardiomyocytes hiPSC-CMs were treated with Lipopolysaccharides (0.1-100 μg/mL) for 6-48 h. Inflammatory cytokine expression was detected by qRT-PCR. **RESULTS**: The mRNA expression level of IL-1β was increased at 6 h of Lipopolysaccharides treatment, IL-10 was increased only at 48 h, and TNF-α and IL-6 were increased at both 6 and 48 h. [2] **METHODS**: Neutrophils were treated with Lipopolysaccharides (10 mg/ml) for 4 h. The expression levels of target proteins were measured by Western Blot. **RESULTS**: The expression of H3-cit and TLR4 increased after treatment with Lipopolysaccharides, which induced the formation of neutrophil extracellular traps (NETs) in neutrophils. [3]
In vivo	**METHODS**: To construct a mouse model of sepsis, Lipopolysaccharides (25 mg/kg) were administered to C57/BL mice by a single intraperitoneal injection. **RESULTS**: Lipopolysaccharides induced significant up-regulation of inflammatory factors TNF-α and IL-1β. Lipopolysaccharides induced sepsis in a mouse model. [4] **METHODS**: To investigate the effects of Lipopolysaccharides on cognitive deficits and neuroinflammation, Lipopolysaccharides (500-750 μg/kg in saline) were injected intraperitoneally into C57BL/6J mice once daily for seven days. **RESULTS**: Lipopolysaccharides treatment resulted in disease behavior and cognitive

deficits in mice, and these effects were accompanied by microglia activation and neuronal cell loss in the hippocampus. Lipopolysaccharides treatment decreased serum and brain homogenate levels of IL-4 and IL-10, and increased levels of TNF-α, IL-1β, PGE2, and NO levels were increased. [5]

Solubility Information

Solubility	H2O: 5 mg/mL (Need ultrasonic), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2041 mL	1.0204 mL	2.0408 mL
5 mM	0.0408 mL	0.2041 mL	0.4082 mL
10 mM	0.0204 mL	0.102 mL	0.2041 mL
50 mM	0.0041 mL	0.0204 mL	0.0408 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Wang Y, Luo W, Wang X, et al. MAMDC2, a gene highly expressed in microglia in experimental models of Alzheimers Disease, positively regulates the innate antiviral response during neurotropic virus infection. Journal of