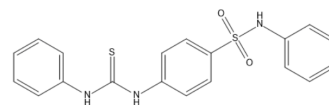


LED209

Cat. No.:	HY-19748		
CAS No.:	245342-14-7		
Molecular Formula:	C ₁₉ H ₁₇ N ₃ O ₂ S ₂		
Molecular Weight:	383.49		
Target:	Bacterial		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (651.91 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.6076 mL	13.0381 mL	26.0763 mL
	5 mM	0.5215 mL	2.6076 mL	5.2153 mL
	10 mM	0.2608 mL	1.3038 mL	2.6076 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

LED209 is a potent small molecule inhibitor of bacterial receptor QseC, is a potent prodrug that is highly selective for QseC. Target: Antibacterial LED209 has desirable pharmacokinetics and does not present toxicity in vitro and in rodents. This is a unique antivirulence approach, with a proven broad-spectrum activity against multiple Gram-negative pathogens that cause mammalian infections. The LED209 QseC inhibitor has a unique mode of action by acting as a prodrug scaffold to deliver a warhead that allosterically modifies QseC, impeding virulence in several Gram-negative pathogens. [1] LED209 is QseC sensor kinase inhibitor, as a potential lead compound to combat infections with Legionella or Mycobacterium spp. [2] LED209 inhibits the binding of signals to QseC, preventing its autophosphorylation and consequently inhibiting QseC-mediated activation of virulence gene expression. LED209 inhibits EHEC virulence traits in vitro. LED209 markedly inhibits the virulence of several pathogens in animals. Inhibition of signaling offers a strategy for the development of broad-spectrum antimicrobial drugs. [3]

REFERENCES

[1]. Curtis MM, et al. QseC inhibitors as an antivirulence approach for Gram-negative pathogens. MBio. 2014 Nov 11;5(6):e02165.

[2]. Harrison CF, et al. Adrenergic antagonists restrict replication of Legionella. Microbiology. 2015 Jul;161(7):1392-406.

[3]. Rasko DA, et al. Targeting QseC signaling and virulence for antibiotic development. Science. 2008 Aug 22;321(5892):1078-80.

Caution: Product has not been fully validated for medical applications. For research use only.

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