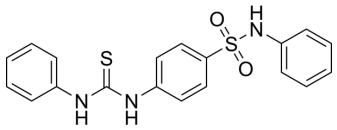
LED209

Cat. No.:	HY-19748
CAS No.:	245342-14-7
Molecular Formula:	$C_{19}H_{17}N_3O_2S_2$
Molecular Weight:	383.49
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

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

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	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 and orally active small molecule inhibitor of the bacterial receptor QseC and a potent prodrug with high selectivity for QseC. LED209 inhibits the binding of signaling molecules to QseC. LED209 has antibacterial activity[1].

In Vitro

LED209 (5 nM, 24 h) decreases biofilm formation in EAEC O104:H4 and several multidrug-resistant clinical isolates of rUTIs[1].

LED209 (7.5-30 μM, 0-80 h) reduces L. pneumophila replication with IC_{50} values of 1.27 μM and 50.6 μM respectively[2].
LED209 (5 pM) inhibits the binding of signals (norepinephrine) to QseC, preventing QseC autophosphorylation and inhibiting QseC-mediated activation of virulence gene expression[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

LED209 (20 mg/kg, p.o., a single dose at 30 min prior to intraperitoneal injection of S. Typhimurium) protects mice against S. Typhimurium and F. tularensis murine infections, as well as F. tularensis murine infections (administered orally to mice either 1, 3, 6, 9, or 24 h prior to infection)[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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.

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