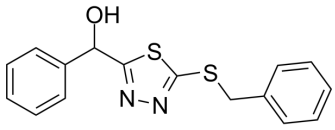
T3SS-IN-5

Cat. No.:	HY-158320
Molecular Formula:	$C_{16}H_{14}N_2OS_2$
Molecular Weight:	314.43
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

T3SS-IN-5 (Compound F9) is a specific inhibitor of the type III secretion system (T3SS). T3SS-IN-5 reduces bacterial pathogenicity without affecting bacterial viability by inhibiting the expression of genes associated with T3SS[1].

In Vitro

T3SS-IN-5 (200 μM; 48 h) has no statistically significant effect on the viability of Xcc[1].
T3SS-IN-5 (200 μM; 5 d) causes a significant reduction in Xcc-jx-6-induced hypersensitive response (HR) in Nicotiana benthamiana[1].
T3SS-IN-5 (200 μM; 4-7 d) reduces the ulcerative symptoms of orach orange and is more effective than bismerthiazol at the same concentration[1].
T3SS-IN-5 (200 μM; 16 h) significantly reduces the relative incidence of Xcc[1].
T3SS-IN-5 (200 μM; 48 h-5 d) does not affect other virulence factors of Xcc, including extracellular enzymes activity, EPS activity, motility, and biofilm formation[1].
T3SS-IN-5 (100-200 μM; 4 d) combines with Burkholderia anthina hN-8 can further improve the inhibition of Xcc[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

***RT-PCR*[1]**

Cell Line:	hrp cluster
Concentration:	200 μM
Incubation Time:	16 h
Result:	Significantly reduced the expression levels of key T3SS genes (hrpG, hrpX, hrpE, hrcC, hrcT, and hpa1) in the Xcc. Significantly reduced the expression of the critical disease susceptibility gene, Citrus sinensis lateral organ boundary 1 (CsLOB1).

REFERENCES

[1]. Zhang YQ, et al. Design and Synthesis of Mandelic Acid Derivatives for Suppression of Virulence via T3SS against Citrus Canker. J Agric Food Chem. 2024 May 1;72(17):9611-9620.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA