Product Data Sheet

Sinococuline

Molecular Weight:

Cat. No.:HY-N11096CAS No.:109351-36-2Molecular Formula: $C_{18}H_{23}NO_5$

Target: Flavivirus; Dengue virus

333.38

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Sinococuline is a potent anti-dengue agent that is effective against all four serotypes of dengue virus (DENV). Sinococuline is also an effective tumor cell growth inhibitor ^{[1][2]} .	
In Vitro	Sinococuline (0.5-5.0 μ g/mL; 6 days) inhibits the non-structural protein-1 (NS1) release by DENV-2 infected Vero cells ^[1] . Sinococuline (0-40 μ g/mL; 48 h) inhibits pan-DENV infection in Vero cells, with IC ₅₀ s of 0.2, 0.08, 0.17, and 0.1 μ g/mL for DENV-1, DENV-2, DENV-3, and DENV-4, respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Sinococuline (0.5-2.0 mg/kg/day; i.p. twice a day for 5 days) decreases the morbidity and increases the survival of severely DENV-infected AG129 mice, with no body weight change ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	AG129 mouse (an interferon type I and II receptor-deficient mice) with severe DENV-infection $^{[1]}$
	Dosage:	0.5, 1.0, 2.0 mg/kg/day
	Administration:	I.p. twice a day for 5 days
	Result:	Showed delayed mortality and survived significantly of mice, but none of the mice could survive till the end of experiment at the dose of 0.5 mg/kg/day. The mice completely survived through the entire course of experiment at the dose of 2.0 mg/kg/day.

REFERENCES

[1]. Shukla R, et, al. Sinococuline, a bioactive compound of Cocculus hirsutus has potent anti-dengue activity. Sci Rep. 2023 Jan 19;13(1):1026.

[2]. Liu WK, et, al. Cytotoxic effects of sinococuline. Cancer Lett. 1996 Feb 6;99(2):217-24.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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