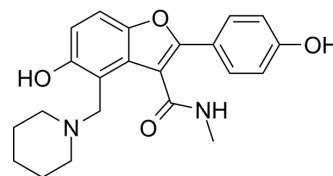


TAM-16

Cat. No.:	HY-116838
CAS No.:	2030241-59-7
Molecular Formula:	C ₂₂ H ₂₄ N ₂ O ₄
Molecular Weight:	380.44
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	TAM-16 is a potent and orally active polyketide synthase 13 (Pks13) inhibitor with an IC ₅₀ value of 0.32 μM. TAM-16 has promising activity against Mycobacterium tuberculosis. TAM-16 inhibits hERG cardiac ion channel ^{[1][2]} .
In Vitro	TAM-16 (compound 1) inhibits the growth of M. tuberculosis strain H37Rv with an IC ₅₀ value of 0.08 μM ^[1] . TAM-16 (0-10 μM) inhibits Mycobacterium tuberculosis by targeting Pks13 ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	TAM-16 (compound 1; 200 mg/kg; p.o.; daily, for 14 days) prevents the development of characteristic lung lesions in murine TB infection models ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Model:	BALB/c mice with tuberculosis (TB) model ^[2]
Dosage:	200 mg/kg
Administration:	oral administration; daily, for 14 days
Result:	Had a significant reduction in lung CFU counts by 0.9 log ₁₀ compared with the untreated control mice

REFERENCES

[1]. Scullion P, et, al. Optimization of TAM16, a Benzofuran That Inhibits the Thioesterase Activity of Pks13; Evaluation toward a Preclinical Candidate for a Novel Antituberculosis Clinical Target. J Med Chem. 2022 Jan 13;65(1):409-423.

[2]. Aggarwal A, et, al. Development of a Novel Lead that Targets M. tuberculosis Polyketide Synthase 13. Cell. 2017 Jul 13;170(2):249-259.e25.

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

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