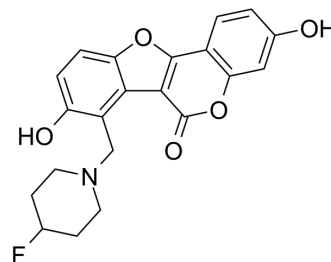


Pks13-TE inhibitor 3

Cat. No.:	HY-151599
CAS No.:	3031462-62-8
Molecular Formula:	C ₂₁ H ₁₈ FNO ₅
Molecular Weight:	383.37
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Pks13-TE inhibitor 3 (compound 23) is a 13-Thioesterase (Pks13-TE) inhibitor (IC ₅₀ =1.55 μM). Pks13-TE inhibitor 3 shows good anti-tuberculosis activity against both agent-sensitive and drug-resistant Mtb strains (MIC=0.0625-0.25 μg/mL). Pks13-TE inhibitor 3 can be used in studies of multidrug-resistant TB and extensively drug-resistant TB ^[1] .	
IC ₅₀ & Target	IC ₅₀ : 1.55 μM (Pks13-TE) ^[1] .	
In Vitro	Pks13-TE inhibitor 3 (0-5.43 μM; 7 days) demonstrates potent activities against DS (drug-susceptible Mtb strain)-tuberculosis-TB and DR (drug-resistant strain of Mtb-tuberculosis)-TB strains with MIC range of 0.0625-0.25 μg/mL ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Cell Viability Assay ^[1]	
	Cell Line:	DS (drug-susceptible Mtb strain)-tuberculosis (V4207), MDR (multidrug-resistant strain of Mtb, resistance to isoniazid and rifampin)-tuberculosis (V2475 and KZN494), XDR (extensively drug-resistant strain of Mtb resistant to isoniazid, rifampin, levofloxacin ofloxacin, and kanamycin)-tuberculosis (TF274 and R506) strains
	Concentration:	0-5.43 μM (0-2048 μg/mL)
	Incubation Time:	7 days
	Result:	Inhibited V4207/DS Mtb strain (MIC=0.125 μg/mL), V2475/MDR (MIC=0.125-0.25 μg/mL), KZN494/MDR (MIC=0.0625-0.125 μg/mL), TF274/XDR (MIC=0.0625 μg/mL) and R506/XDR (MIC=0.0625 μg/mL) Mtb strains.

REFERENCES

[1]. Zhang W, et al. Structure-Based Optimization of Coumestan Derivatives as Polyketide Synthase 13-Thioesterase(Pks13-TE) Inhibitors with Improved hERG Profiles for Mycobacterium tuberculosis Treatment. J Med Chem. 2022 Oct 13;65(19):13240-13252.

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

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