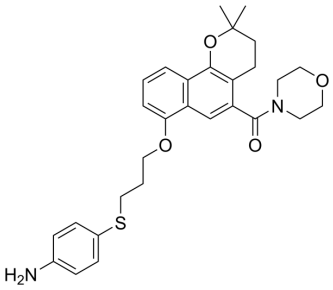
AcrB-IN-4

Cat. No.:	HY-149812
CAS No.:	2890177-95-2
Molecular Formula:	$C_{29}H_{34}N_2O_4S$
Molecular Weight:	506.66
Target:	Bacterial; Parasite
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Efflux pump-IN-4 is an AcrB efflux pump inhibitor, with ability to potentiate the effect of antibiotics. Efflux pump-IN-4 inhibits Nile Red (a known substrate of AcrB) efflux. Efflux pump-IN-4 does not disrupts the bacterial outer membrane nor display toxicity in a nematode model[1].
In Vitro	Efflux pump-IN-4 (compound G11) (8-128 μg/mL) shows outstanding antibacterial synergism with at least one of the antibiotics (ERY, LEV and MIN). Efflux pump-IN-4 show antibacterial synergism with MIN, and reduces the MIC value of LEV by 4-fold at 8 μg/mL[1]. Efflux pump-IN-4 (50 μM, 100 μM) shows strong inhibitory activity at the lowest concentration of 50 μM, to inhibit Nile Red efflux[1]. Efflux pump-IN-4 (4-256 μg/mL) does not cause hemolysis of mice red blood cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Efflux pump-IN-4 (compound G11) (128 μg/mL; 72 h) shows no significant and in vivo toxicity against Caenorhabditis elegans [1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Guo T, et al. Design and synthesis of benzochromene derivatives as AcrB inhibitors for the reversal of bacterial multidrug resistance. Eur J Med Chem. 2023 Mar 5;249:115148.

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