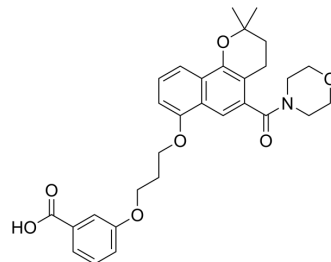


AcrB-IN-3

Cat. No.:	HY-149811
CAS No.:	2890177-94-1
Molecular Formula:	C ₃₀ H ₃₃ NO ₇
Molecular Weight:	519.59
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-3 is an AcrB efflux pump inhibitor, with ability to potentiate the effect of antibiotics. Efflux pump-IN-3 inhibits Nile Red (a known substrate of AcrB) efflux. Efflux pump-IN-3 does not disrupts the bacterial outer membrane nor display toxicity in a nematode model ^[1] .
In Vitro	<p>Efflux pump-IN-3 (compound G10) (8-128 µg/mL) shows outstanding antibacterial synergism with at least one of the antibiotics (ERY, LEV and MIN). Efflux pump-IN-3 show antibacterial synergism with MIN, and reduces the MIC value of ERY by 4-fold at 64 µg/mL^[1].</p> <p>Efflux pump-IN-3 (50 µM, 100 µM) shows strong inhibitory activity at the lowest concentration of 50 µM, to inhibit Nile Red efflux^[1].</p> <p>Efflux pump-IN-3 (4-256 µg/mL) does not cause hemolysis of mice red blood cells^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<p>Efflux pump-IN-3 (compound G10) (128 µg/mL; 72 h) shows no significant and in vivo toxicity against <i>Caenorhabditis elegans</i> ^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

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.

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

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