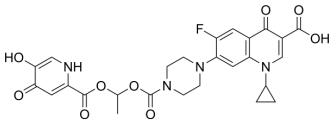
Antibacterial agent 128

Cat. No.:	HY-151944
Molecular Formula:	$C_{26}H_{25}FN_4O_9$
Molecular Weight:	556.5
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Antibacterial agent 128 is a siderophore analog-Ciprofloxacin (Ciprofloxacin (HY-B0356)) conjugate with a cleavable linker. Antibacterial agent 128 shows antibiotic activities against ***P. aeruginosa*** (MIC values of 0.25-64 μg/mL) and ***B. pseudomallei*** (MIC values of 1-32 μg/mL)[1].
IC_{50} & Target	MIC: 0.25-64 μg/mL (P. aeruginosa), 1-32 μg/mL (B. pseudomallei), 4-128 μg/mL (B. thailandensis)[1]
In Vitro	Antibacterial agent 128 (compound 2d), bearing an hydroxypyridinone moiety with a cleavable linker, active on a large panel of strains of P. aeruginosa (MIC = 0.25-64 μg/mL), B. pseudomallei (MIC = 1-32 μg/mL) and B. thailandensis (MIC = 4-128 μg/mL). Moreover, Antibacterial agent 128 is active on the P. aeruginosa Ciprofloxacin-resistant strain AM85 without cytotoxicity[1]. Using iron transport systems is a promising strategy to bypass the bacteria cell membrane and restore the activity of conventional antibiotics such as Ciprofloxacin. The siderophore analogs correspond to a mono-catechol or a hydroxypyridinone moiety recognized by both Pseudomonas and Burkholderia species. Physico-chemical studies show that (i) conjugates were unable to interact or cross the membrane by passive diffusion and (ii) conjugates with cleavable linker are stable in physiologic environment[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. P Loupias, et al. Synthesis and study of new siderophore analog-ciprofloxacin conjugates with antibiotic activities against Pseudomonas aeruginosa and Burkholderia spp. Eur J Med Chem. 2023 Jan 5;245(Pt 2):114921.

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

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