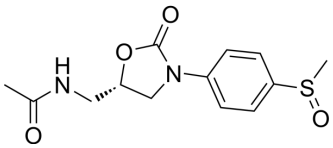
DuP 105

Cat. No.:	HY-101726
CAS No.:	96800-41-8
Molecular Formula:	$C_{13}H_{16}N_2O_4S$
Molecular Weight:	296.34
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	DuP 105 is an orally active oxazolidinone, a new class of synthetic antimicrobial agent with activity against gram-positive bacteria.
IC_{50} & Target	Oxazolidinone
In Vitro	DuP 105 shows inhibitory activities against staphylococcal isolates and B. fragilis isolates with MIC_{90}s of 4 to 16 μg/mL and 16 μg/mL[1]. DuP 105 MICs for 50% of the 216 gram-positive isolates tested (MIC_{50}s) range from 4.0 to 16 μg/mL[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	DuP 105 administered by either the oral or the parenteral route is protective against staphylococcal and streptococcal infections in mice with the 50% effective doses of 9 to 23 mg/kg[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [1]	The mice are made neutropenic by the intraperitoneal administration of 100 mg of cyclophosphamide per kg on days -5, -3, and 0 (the day of infection). The extent of immunosuppression is assessed by using a standard hematological technique to determine leukocyte counts. In all experiments, the leukocyte count in the cyclophosphamide-treated mice is less than 15% of that in nontreated mice from day 0 through day 7. On day 0, the mice are injected intraperitoneally with a bacterial inoculum suspended in 0.2 mL of saline containing 5% gastric porcine mucin. This inoculum (2×10^4 CFU) is fivefold that required to kill all the nontreated immunosuppressed mice in 48 h. Graded doses of the test compounds are administered by the subcutaneous or oral route at 1 and 4 h after infection. In parallel with the immunosuppressed mice, groups of nonimmunosuppressed mice are infected, and treated with the antibacterial drugs. The number of survivors on day 7 in each group is used to calculate the ED_{50} values of the test compounds. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Slee AM, et al. Oxazolidinones, a new class of synthetic antibacterial agents: in vitro and in vivo activities of DuP 105 and DuP 721. Antimicrob Agents Chemother. 1987 Nov;31(11):1791-7.

[2]. Barry AL, et al. In vitro evaluation of DuP 105 and DuP 721, two new oxazolidinone antimicrobial agents. Antimicrob Agents Chemother. 1988 Jan;32(1):150-2.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA