

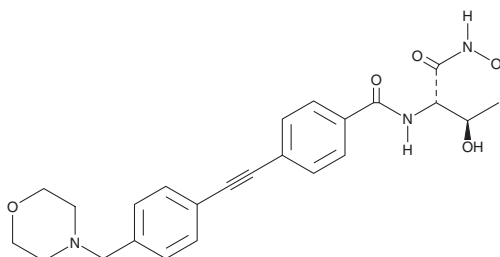
PRODUCT INFORMATION



CHIR090

Item No. 22256

CAS Registry No.: 728865-23-4
Formal Name: N-[(1S,2R)-2-hydroxy-1-[(hydroxyamino)carbonyl]propyl]-4-[2-[4-(4-morpholinylmethyl)phenyl]ethynyl]-benzamide
MF: C₂₄H₂₇N₃O₅
FW: 437.5
Purity: ≥98%
UV/Vis.: λ_{max}: 299 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CHIR090 is supplied as a crystalline solid. A stock solution may be made by dissolving the CHIR090 in the solvent of choice, which should be purged with an inert gas. CHIR090 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CHIR090 in these solvents is approximately 2.5 and 2 mg/ml, respectively.

Description

CHIR090 is an antibiotic that inhibits LpxC, a deacetylase involved in the biosynthesis of LPS lipid A, with K_i values of 1-1.7 nM in *A. aeolicus*.¹ It is active against Gram-negative bacteria with MIC values of 0.05, 0.78, and 0.10-6.25 mg/ml for *E. coli*, *P. aeruginosa*, and various *B. multivorans* (II) strains, respectively.^{2,3} It is comparable in strength to ciprofloxacin (Item No. 14286) in disc assays.¹

References

1. McClerren, A.L., Endsley, S., Bowman, J.L., *et al.* A slow, tight-binding inhibitor of the zinc-dependent deacetylase LpxC of lipid A biosynthesis with antibiotic activity comparable to ciprofloxacin. *Biochemistry* **44**(50), 16574-16583 (2005).
2. Barb, A.W., McClerren, A.L., Snehelatha, K., *et al.* Inhibition of lipid A biosynthesis as the primary mechanism of CHIR-090 antibiotic activity in *Escherichia coli*. *Biochemistry* **46**(12), 3793-3802 (2007).
3. Bodewits, K., Raetz, C.R., Govan, J.R., *et al.* Antimicrobial activity of CHIR-090, an inhibitor of lipopolysaccharide biosynthesis, against the *Burkholderia cepacia* complex. *Antimicrob. Agents Chemother.* **54**(8), 3531-3533 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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