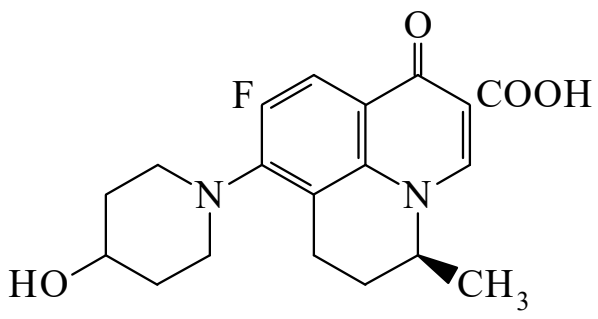
>>**Entry Name: Nadifloxacin,** BAN, INN

Synonym(s): 9-Fluoro-6,7-dihydro-8-(4-hydroxy-1-piperidinyl)-5-methyl-1-oxo-1*H*,5*H*-benzo[*i,j*]quinolizine-2-carboxylic acid, 9Cl. Acuatim. Aquatim. Zinofloxacin. OPC 7251



(*S*)-*form*

Related CAS Registry Numbers(s): 81962-84-7 129672-74-8

Molecular Formula: $C_{19}H_{21}FN_2O_4$
Molecular Weight: 360.384
Accurate Mass: 360.148536
Percentage Composition: C 63.32%; H 5.87%; F 5.27%; N 7.77%; O 17.76%
Biological Use/Importance: Shows strong antibacterial activity against gram positive bacteria. Used for topical treatment of acne
Development Status: Launched 1993 (Japan)
Calculated Log P Data: Log P 0.99 (uncertain value) (calc)
Other Data: Both enantiomers show similar mutagenic props.

>>**Variant:** (*S*)-form

Molecular Formula: $C_{19}H_{21}FN_2O_4$
Molecular Weight: 360.384
Accurate Mass: 360.148536
Percentage Composition: C 63.32%; H 5.87%; F 5.27%; N 7.77%; O 17.76%
Physical Description: Cryst. (EtOAc/THF)
Melting Point: Mp 262 dec.°
Optical Rotation: $[\alpha]_D^{20}$ –314 (c, 1.0 in MeOH) (100% ee)

>>**Variant:** (±)-form

CAS Registry Number: 124858-35-1
Molecular Formula: $C_{19}H_{21}FN_2O_4$
Molecular Weight: 360.384
Accurate Mass: 360.148536
Percentage Composition: C 63.32%; H 5.87%; F 5.27%; N 7.77%; O 17.76%
Physical Description: Prisms (EtOH aq.)
Melting Point: Mp 245-247 dec.°

>>**Derivative:** Me ester

CAS Registry Number: 130539-76-3
Molecular Formula: $C_{20}H_{23}FN_2O_4$
Molecular Weight: 374.411
Accurate Mass: 374.164186
Percentage Composition: C 64.16%; H 6.19%; F 5.07%; N 7.48%; O 17.09%
Physical Description: Yellow powder (DMF aq.)
Melting Point: Mp 178-182°

References:

Ishikawa, H. *et al.*, *Chem. Pharm. Bull.*, 1989, **37**, 2103, *(synth, pmr, activity)*
Morita, S. *et al.*, *Chem. Pharm. Bull.*, 1990, **38**, 2027, *(Me ester, synth, cmr, ir)*
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, 1993, 183
Takahashi, N. *et al.*, *Arzneim.-Forsch.*, 1994, **44**, 1265, *(mutagenicity)*
Kido, M. *et al.*, *Chem. Pharm. Bull.*, 1994, **42**, 872, *(cryst struct)*
Hashimoto, K. *et al.*, *Chem. Pharm. Bull.*, 1996, **44**, 421; 642, *(synth, cryst struct, abs config)*