Norfloxacin

Other names:	1,4-Dihydro-1-ethyl-6-fluoro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid 1-Ethyl-3-carboxy-6-fluoro-7-(piperazinyl-1)-quinolin-4(1H)-one 1-Ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid 1-Ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid (norfloxacin) 3-Quinolinecarboxylic acid, 1,4-dihydro-1-ethyl-6-fluoro-4-oxo-7-(1-piperazinyl)- 3-Quinolinecarboxylic acid, 1-ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)- AM-715 Baccidal Barazan Chibroxin Chibroxine Chibroxol Floxacin Fulgram Gonorcin Lexinor MK-366 Noflo Nolicin Noracin Noraxin Norfloxacine Norocin Noroxin Noroxine Norxacin Sebercim Uroxacin Utinor Zoroxin
Inchi:	InChI=1S/C16H18FN3O3/c1-2-19-9-11(16(22)23)15(21)10-7-12(17)14(8-13(10)19)20-5-3
InchiKey:	OGJPXUAPXNRGGI-UHFFFAOYSA-N
Formula:	C16H18FN3O3
SMILES:	CCn1cc(C(=O)O)c(=O)c2cc(F)c(N3CCNCC3)cc21
Mol. weight [g/mol]:	319.33
CAS:	70458-96-7

Physical Properties

Property code	Value	Unit	Source
log10ws	-2.91		Aqueous Solubility Prediction Method
logp	1.268		Crippen Method
mcvol	227.240	ml/mol	McGowan Method
tf	493.50	K	Sublimation thermodynamics of four fluoroquinolone antimicrobial compounds

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hfust	32.42	kJ/mol	492.60	NIST Webbook
hfust	32.97	kJ/mol	500.20	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Equilibrium study and diversified models of drug Norfloxacin in eight pure organic and binary solvents at T = (278.15 to 323.15) K:	https://www.doi.org/10.1016/j.fluid.2016.12.012
Sublimation thermodynamics of four fluoroquinolone antimicrobial compounds:	https://www.doi.org/10.1016/j.jct.2016.10.010
Aqueous Solubility Prediction Method:	http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C70458967&Units=SI
Aqueous Solubilities for Ofloxacin, Norfloxacin, Lomefloxacin, Ciprofloxacin, Pefloxacin, and Pipemidic Acid in 1-Octanol from (293.15 to 323.15) K:	https://www.doi.org/10.1021/je7007044
Solubility of norfloxacin and ofloxacin in some chloroalkanols:	https://www.doi.org/10.1016/j.fluid.2012.06.023
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Determination and Correlation for Solubilities of Ofloxacin, Norfloxacin, Lomefloxacin, Ciprofloxacin, Pefloxacin, and Pipemidic Acid in 1-Octanol from (293.15 to 333.15) K:	https://www.doi.org/10.1021/je100116u

Legend

hfust:	Enthalpy of fusion at a given temperature
log10ws:	Log10 of Water solubility in mol/l

logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
tf:	Normal melting (fusion) point