

# Norfloxacin

<b>Other names:</b>	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) 5-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
<b>Inchi:</b>	InChI=1S/C16H18FN3O3/c1-2-19-9-11(16(22)23)15(21)10-7-12(17)14(8-13(10)19)20-5-
<b>InchiKey:</b>	OGJPXUAPXNRGGI-UHFFFAOYSA-N
<b>Formula:</b>	C16H18FN3O3
<b>SMILES:</b>	CCn1cc(C(=O)O)c(=O)c2cc(F)c(N3CCNCC3)cc21
<b>Mol. weight [g/mol]:</b>	319.33
<b>CAS:</b>	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

<b>Equilibrium study and diversified models of drug Norfloxacin in eight Sublimation thermodynamics of four fluoroquinolone antimicrobial compounds. Aqueous Solubility Prediction Method:</b>	<a href="https://www.doi.org/10.1016/j.fluid.2016.12.012">https://www.doi.org/10.1016/j.fluid.2016.12.012</a>
<b>McGowan Method:</b>	<a href="http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDataset002.xlsx">http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDataset002.xlsx</a>
<b>Crippen Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>Aqueous Solubilities for Ofloxacin, Norfloxacin, Lomefloxacin, Diprofloxacin and Correlation for Solubilities of Ofloxacin(Norfloxacin) and Norfloxacin(Ofoxacin) and ofloxacin(Diprofloxacin) in N-Octanol from (293.15 to 333.15) K:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
	<a href="https://www.doi.org/10.1021/je7007044">https://www.doi.org/10.1021/je7007044</a>
	<a href="https://www.doi.org/10.1021/je100116u">https://www.doi.org/10.1021/je100116u</a>
	<a href="https://www.doi.org/10.1016/j.fluid.2012.06.023">https://www.doi.org/10.1016/j.fluid.2012.06.023</a>
	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C70458967&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C70458967&amp;Units=SI</a>

## Legend

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

**logP:** Octanol/Water partition coefficient

**mcvol:** McGowan's characteristic volume

**tf:** Normal melting (fusion) point

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