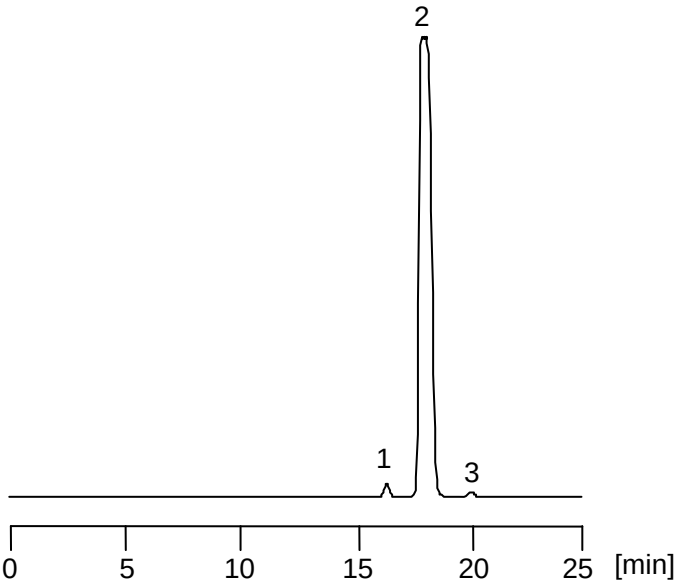
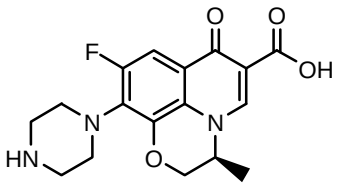
レボフロキサシン不純物 E　　Levofloxacin impurity E

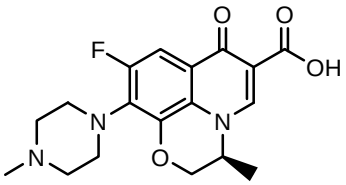
レボフロキサシンは，合成抗菌剤の一種です．中国薬典，EP 等に記載のある不純物 E と原体との分離を中国薬典の含量測定法に従い分析した例を以下に示しました．カラムには CELL PAK C_{18} MGII S5（4.6 mm i.d. x 250 mm）を用い充分な分離度が得らました.

Levofloxacin is one of the synthetic antibacterial drugs. Separation between the compound and its impurity E mentioned in Chinese and European Pharmacopoeias was performed with CAPCELL PAK C_{18} MGII S5 (4.6 mm i.d. x 250 mm) under conditions of Chinese Pharmacopoeia, showing an adequate resolution between them.

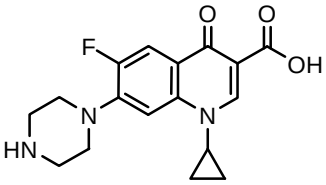




1. 不純物 E (6 μg/mL)
   Impurity E (M.W. 347.3)



2. レボフロキサシン (120 μg/mL)
   Levofloxacin (M.W. 361.4)



3. シプロフロキサシン (6 μg/mL)
   Ciprofloxacin (M.W. 331.3)

【HPLC Conditions】

Column	: CAPCELL PAK C_{18} MGII S5 ; 4.6 mm i.d. x 250 mm
Mobile phase	: 43 mmol/L CH_3COONH_4, 44 mmol/L $NaClO_4$ (adjusted at pH 2.2 with H_3PO_4) / CH_3CN = 85 / 15
Flow rate	: 1.0 mL/min
Temperature	: 40 ˚C
Detection	: UV 294 nm
Inj. vol.	: 10 μL
Sample dissolved in	: 100 mmol/L HCl

※ 1 μg/mL = 1 ppm