X-ray Crystal Structure Analysis of (–)-Epidihydropinidine Hydrochloride (2[·]HCl)

Single crystal of **2** HCl suitable for X-ray analysis was obtained by slow evaporation of its ethanolic solution at room temperature. Data collection was performed at 100 K on a Oxford Diffraction GEMINI R diffractometer¹ equipped with a CCD detector with Cu K α radiation (λ = 1.5418 Å) and graphite monochromator. The details of data collection and refinement are in Table S1. Crystal structure (Figure S1, S2) was solved and refined by SHELXS and SHELXL-97 suit of programs.²



Figure S1. ORTEP³ scheme of (–)-epidihydropinidine hydrochloride **2**'**HCI**. Thermal ellipsoids are drawn at the 20% probability level.

¹ Oxford Diffraction (2010). *CrysAlis CCD* and *CrysAlis RED*. Oxford Diffraction Ltd, Abingdon, Oxfordshire, England.

² Sheldrick, G. M. (2008). Acta Cryst. A64, 112-122.

³ Brandenburg, K. (1998). *DIAMOND*. Visual Information System for Crystal Structures, Bonn, Germany.



Figure S2. Schematic view of Cl⁻ interactions with (–)-epidihydropinidine hydrochloride.

Table S1. Crystal data collection and refinement for (–)-epidihydropinidine hydrochloride

 2:HCI

Crystal data

$C_9H_{20}CI_1N_1$	$F_{000} = 1568$
Mr = 177.71	$Dx = 0.964 \text{ Mg m}^{-3}$
Orthorhombic, C 2 2 2	Cu Kα radiation
	λ = 1.5418 Å
Hall symbol: C 2 2	Cell parameters from 28106 reflections
<i>a</i> = 9.90868(12) Å	$\theta = 3.07 - 74.87^{\circ}$
<i>b</i> = 34.4359(6) Å	$\mu = 2.363 \text{ mm}^{-1}$
<i>c</i> = 14.35610(16) Å	<i>T</i> = 293 (1) K
<i>V</i> = 4898.51(11) Å ³	Block, colourless
<i>Z</i> = 16	0.96 × 0.42 × 0.21 mm

Data collection

Goniometer Xcalibur, detector: Ruby (Gemini Cu)	
diffractometer	4914 independent reflections
Radiation source: Enhance (Cu) X-ray Source	4415 reflections with $l > 2\sigma(l)$
Monochromator: graphite	<i>R</i> _{int} = 0.020
Detector resolution: 10.4340 pixels mm ⁻¹	θmax = 74.87°
<i>T</i> = 293(1) K	θmin = 3.07°
Rotation method data acquisition using ω and ϕ scans	<i>h</i> = −10→12
Absorption correction: analytical	<i>k</i> = −42→39
CrysAlis RED, Oxford Diffraction Ltd.	/=-16→17

 $T_{\min} = 0.271$, $T_{\max} = 0.656$ 42033 measured reflections

Refinement

Refinement on F ²	Hydrogen site location: inferred from neighbouring sites
Least-squares matrix: full	H-atom parameters constrained
$R[F^2 > 2\sigma(F^2)] = 0.066$	$w = 1/[\sigma^2(Fo^2) + (0.0565P)^2 + 0.2803P]$
	where $P = (Fo^2 + 2Fc^2)/3$
$wR(F^2) = 0.068$	$(\Delta/\sigma)_{max} = 0.001$
<i>S</i> = 1.13	$\Delta \rho_{max} = 0.93 \text{ e } \text{A}^{-3}$
4914 reflections	$\Delta \rho_{\rm min} = -0.26 \ {\rm e} \ {\rm A}^{-3}$
212 parameters	Extinction correction: 0.0011(2)
Primary atom site location:	Absolute structure: (Hooft, R. W. W., Straver, L. H.
structure-invariant direct methods	& Spek, A. L. (2008). J. Appl. Cryst. 41, 96-103)
	'Rogers (1981), 12512 Friedel pairs'
Secondary atom site location:	
difference Fourier map	Flack parameter: 0.03(2)

Supplementary material: Crystallographic data for the structural analysis have been deposited at the Cambridge Crystallographic Data Centre, CCDC no. 800711.