Acta Crystallographica Section E
Structure Reports Online
ISSN 1600-5368

2-[(Indan-1-ylidene)amino]ethanol

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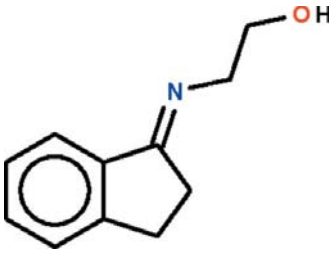
Received 11 August 2011; accepted 13 August 2011

Key indicators: single-crystal X-ray study; T = 100 K; mean σ(C–C) = 0.002 Å; R factor = 0.037; wR factor = 0.099; data-to-parameter ratio = 14.3.

The five-membed ring of the title compound, $C_{11}H_{13}NO$, that is fused with the aromatic ring is approximately planar (r.m.s. deviation = 0.037 Å) despite the presence of the sp^3-hybridized ethylene linkage. The hydroxy group of the N-bound hydroxyethyl chain serves as hydrogen-bond donor to the azomethine N atom of an adjacent molecule, generating a hydrogen-bonded C_2-symmetric dimer.

Related literature

The related $C_{13}H_{13}NO$ amine is a reagent in the synthesis of pharmaceuticals, see: Stange *et al.* (1957).



Experimental

Crystal data

$C_{11}H_{13}NO$
M_r = 175.22
Monoclinic, $C2/c$
a = 16.0207 (4) Å
b = 9.2002 (2) Å
c = 13.0600 (3) Å
β = 112.855 (3)°
V = 1773.83 (7) Å^3
Z = 8
Cu $K\alpha$ radiation
μ = 0.67 mm^{-1}
T = 100 K
0.30 × 0.30 × 0.10 mm

Data collection

Agilent SuperNova Dual diffractometer with an Atlas detector
Absorption correction: multi-scan (*CrysAlis PRO*; Agilent, 2010)
T_{min} = 0.825, T_{max} = 0.937
3090 measured reflections
1745 independent reflections
1590 reflections with $I > 2\sigma(I)$
R_{int} = 0.015

Refinement

$R[F^2 > 2\sigma(F^2)]$ = 0.037
$wR(F^2)$ = 0.099
S = 1.02
1745 reflections
122 parameters
H atoms treated by a mixture of independent and constrained refinement
$\Delta\rho_{max}$ = 0.29 e Å^{-3}
$\Delta\rho_{min}$ = −0.21 e Å^{-3}

Table 1
Hydrogen-bond geometry (Å, °).

D—H···A	D—H	H···A	D···A	D—H···A
O1—H1···N1^{i}	0.91 (2)	1.91 (2)	2.820 (1)	173 (2)

Symmetry code: (i) $-x+1, y, -z+\frac{1}{2}$.

Data collection: *CrysAlis PRO* (Agilent, 2010); cell refinement: *CrysAlis PRO*; data reduction: *CrysAlis PRO*; program(s) used to solve structure: *SHELXS97* (Sheldrick, 2008); program(s) used to refine structure: *SHELXL97* (Sheldrick, 2008); molecular graphics: *X-SEED* (Barbour, 2001); software used to prepare material for publication: *publCIF* (Westrip, 2010).

We thank King Abdulaziz University and the University of Malaya for supporting this study.

Supplementary data and figures for this paper are available from the IUCr electronic archives (Reference: BT5608).

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