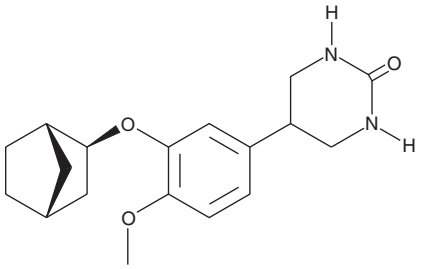
PRODUCT INFORMATION

CP 80,633

Item No. 13183

CAS Registry No.:	135637-46-6
Formal Name:	5-[3-[(1S,2S,4R)-bicyclo[2.2.1]hept-2-yloxy]-methoxyphenyl]tetrahydro-2-(1H)-pyrimidinone
MF:	$C_{18}H_{24}N_2O_3$
FW:	316.4
Purity:	≥95%
UV/Vis.:	230, 281 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CP 80,633 is supplied as a crystalline solid. A stock solution may be made by dissolving the CP 80,633 in the solvent of choice, which should be purged with an inert gas. CP 80,633 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of CP 80,633 in DMSO is approximately 2 mg/ml and approximately 3 mg/ml in DMF.

CP 80,633 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CP 80,633 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. CP 80,633 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Phosphodiesterases (PDE) enzymatically convert the cyclic nucleotide second messengers cAMP and cGMP to 5'-AMP and 5'-GMP, respectively, thus terminating signal transduction. The cAMP-specific PDE4 isoforms may be particularly important in certain respiratory and neurological diseases.[1,2] CP 80,633 is a selective inhibitor of PDE4 (IC_{50} = 1.27 µM for PDE4 *versus* >100 µM for PDE1, PDE2, PDE3, and PDE5).[3] It potentiates PGE_1-dependent increases in cAMP levels in eosinophils, monocytes, and T-cells, inhibits eosinophil superoxide production (IC_{50} < 0.6 µM), and blocks LPS-induced TNF-α release from monocytes (IC_{50} = 0.22 µM).[3] CP 80,633 (1 mg/kg) significantly reduces antigen-induced airway inflammation in atopic guinea pigs, monkeys, and mice.[4,5]

References

1. Spina, D. *Br. J. Pharmacol.* **155**, 308-315 (2008).
2. O'Donnell, J.M. and Zhang, H.-T. *Trends Pharmacol. Sci.* **25(3)**, 158-163 (2004).
3. Cohan, V.L., Showell, H.J., Fisher, D.A., *et al. J. Pharmacol. Exp. Ther.* **278(3)**, 1356-1361 (1996).
4. Turner, C.R., Cohan, V.L., Cheng, J.B., *et al. J. Pharmacol. Exp. Ther.* **278(3)**, 1349-1355 (1996).
5. Cheng, J.B., Watson, J.W., Pazoles, C.J., *et al.* T *J. Pharmacol. Exp. Ther.* **280**, 621-626 (1997).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM