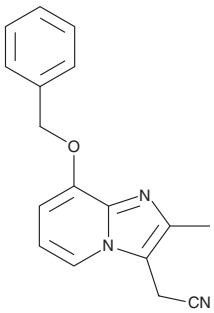
PRODUCT INFORMATION

SCH 28080

Item No. 17885



CAS Registry No.:	76081-98-6
Formal Name:	2-methyl-8-(phenylmethoxy)-imidazo[1,2-a]pyridine-3-acetonitrile
MF:	$C_{17}H_{15}N_3O$
FW:	277.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 229, 235, 280 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

SCH 28080 is supplied as a crystalline solid. A stock solution may be made by dissolving the SCH 28080 in the solvent of choice, which should be purged with an inert gas. SCH 28080 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of SCH 28080 in these solvents is approximately 20 mg/ml.

SCH 28080 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SCH 28080 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. SCH 28080 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SCH 28080 is a reversible K^+-competitive inhibitor of H^+/K^+-ATPases that is best known for its ability to block acid secretion through its action against the gastric H^+/K^+-ATPase (IC_{50} = 1.3 µM).[1-3] It is effective against gastric H^+/K^+-ATPases from a variety of species and can inhibit colonic H^+/K^+-ATPases, but this activity appears to be species-dependent.[4] SCH 28080 is also used to investigate the role of H^+/K^+-ATPases in non-mammalian organisms and to distinguish the actions of H^+/K^+-ATPases from other ATP-dependent transporters.[5,6]

References

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4. Shao, J., Gumz, M.L., Cain, B.D., *et al*. Pharmacological profiles of the murine gastric and colonic H,K-ATPases. *Biochim. Biophys. Acta* **1800(9)**, 906-911 (2010).
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6. Salyer, S.A., Olderding, J.R., Distler, A.A., *et al*. Vacuolar ATPase driven potassium transport in highly metastatic breast cancer cells. *Biochim. Biophys. Acta* **1832(10)**, 1734-1743 (2013).

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