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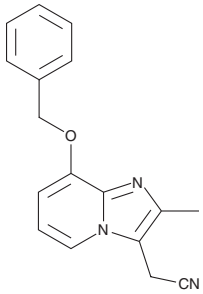
PRODUCT INFORMATION

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%
Stability:	≥2 years at -20°C
Supplied as:	A crystalline solid
UV/Vis.:	λ_{max}: 229, 235, 280 nm



Laboratory Procedures

For long term storage, we suggest that SCH 28080 be stored as supplied at -20°C. It should be stable for at least two years.

SCH 28080 is supplied as a crystalline solid. A stock solution may be made by dissolving the SCH 28080 in the solvent of choice. SCH 28080 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. 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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5. Beane, W.S., Morokuma, J., Adams, D.S., *et al*. A chemical genetics approach reveals H,K-ATPase-mediated membrane voltage is required for planarian head regeneration. *Chem. Biol.* **18**, 77-89 (2011).
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**, 1734-1743 (2013).

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