Certificate of Analysis

Product Name: **SCH 28080** **Catalog No.: 1690** **Batch No.: 2**

CAS Number: 76081-98-6

IUPAC Name: 2-Methyl-8-(phenylmethoxy)imidazo[1,2-*a*]pyridine-3-acetonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{17}H_{15}N_3O$

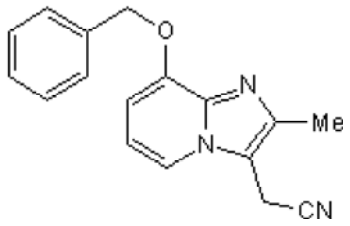
Batch Molecular Weight: 277.33

Physical Appearance: Beige solid

Solubility: ethanol to 10 mM
DMSO to 25 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.77 (Chloroform:Methanol [95:5])

Melting Point: Between 165 - 166°C

HPLC: Shows 99.2% purity

^{1}H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	73.63	5.45	15.14
Found	73.49	5.42	15.12

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Description:

Potent inhibitor of H^+,K^+-ATPase (IC_{50} = 20 nM); binds to the K^+ recognition site and is competitive with respect to K^+. Inhibits gastric acid secretion in vitro and in vivo.

Physical and Chemical Properties:

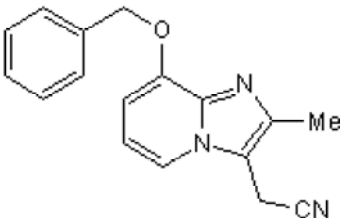
Batch Molecular Formula: $C_{17}H_{15}N_3O$

Batch Molecular Weight: 277.33

Physical Appearance: Beige solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

ethanol to 10 mM
DMSO to 25 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Vagin *et al* (2002) SCH 28080, a K^+-competitive inhibitor of the gastric H,K-ATPase, binds near the M5-6 luminal loop, preventing K^+ access to the ion binding domain. Biochemistry ***41*** 12755. PMID: 12379118.

Scott *et al* (1987) Studies on the mechanism of action of the gastric microsomal (H^+K^+)-ATPase inhibitors SCH 32651 and SCH 28080. Biochem.Pharmacol. ***36*** 97. PMID: 3026407.

Long *et al* (1983) Gastric antisecretory and cytoprotective activities of SCH 28080. J.Pharmacol.Exp.Ther. ***226*** 114. PMID: 6864535.

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