

Certificate of Analysis

Product Name: Harmane

CAS Number: 486-84-0

IUPAC Name: 1-Methyl-9*H*-pyrido[3,4-*b*]indole

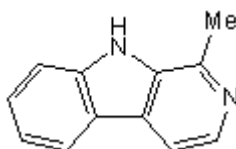
Catalog No.: 1132

Batch No.: 3

EC Number: 207-642-2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₂H₁₀N₂
Batch Molecular Weight: 185.82
Physical Appearance: White solid
Solubility: ethanol to 100 mM
DMSO to 100 mM
1eq. HCl to 10 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.12 (Ethyl acetate:Petroleum ether [3:2])
Melting Point: Between 233 - 236°C
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	79.1	5.53	15.37
Found	78.85	5.47	15.37

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Proposed as the endogenous ligand for imidazoline binding sites. Binds to I₁-sites in rat kidney (IC₅₀ = 31 nM) and I₂-sites (K_i = 49 nM). Produces dose-dependent hypotension in vivo that is reversed by efaroxan (Cat. No. 0792). Potent inhibitor of monoamine oxidase A and B (IC₅₀ values are 0.5 and 5 μM respectively).

Physical and Chemical Properties:

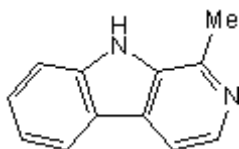
Batch Molecular Formula: C₁₂H₁₀N₂

Batch Molecular Weight: 185.82

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Merck Index **12** 4646.

Glover et al (1982) β-Carbolines as selective monoamine oxidase inhibitors: *in vivo* implications. J.Neural Transm. **54** 209. PMID: 7130973.

Ernsberger et al (1999) The I₁-imidazoline receptor and its cellular signalling pathways. Ann.N.Y.Acad.Sci. **881** 35. PMID: 10415895.

Hudson et al (1999) Harmane, norharmane and tetrahydro β-carboline have high affinity for rat imidazoline binding sites. Br.J.Pharmacol. **126** 2P.

Musgrave and Badoer (2000) Harmane produces hypotension following microinjection into the RVLM: possible role of I₁-imidazoline receptors. Br.J.Pharmacol. **129** 1057. PMID: 10725251.

Storage: Store at RT

Solubility & Usage Info:

ethanol to 100 mM

DMSO to 100 mM

1eq. HCl to 10 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.

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