Certificate of Analysis

Product Name: **Pirenzepine dihydrochloride** **Catalog No.: 1071** **Batch No.: 6**

CAS Number: 29868-97-1 EC Number: 249-228-4

IUPAC Name: 5,11-Dihydro-11-[(4-methyl-1-piperazinyl)acetyl]-6*H*-pyrido[2,3-*b*][1,4]benzodiazepin-6-one dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{19}H_{21}N_5O_2.2HCl.1¼H_2O$

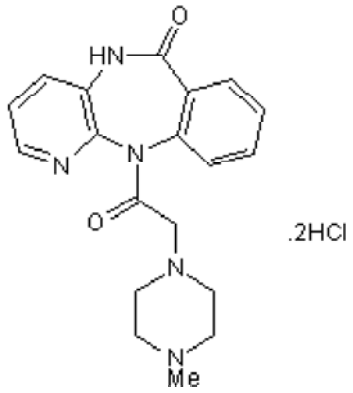
Batch Molecular Weight: 446.85

Physical Appearance: White crystalline solid

Solubility: water to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.5% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	51.07	5.75	15.67
Found	51.18	5.45	15.63

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Name: **Pirenzepine dihydrochloride** **Catalog No.: 1071** **Batch No.: 6**

CAS Number: 29868-97-1 EC Number: 249-228-4

IUPAC Name: 5,11-Dihydro-11-[(4-methyl-1-piperazinyl)acetyl]-6*H*-pyrido[2,3-*b*][1,4]benzodiazepin-6-one dihydrochloride

Description:

M_1 muscarinic receptor selective antagonist. Inverse agonist activity reported.

Physical and Chemical Properties:

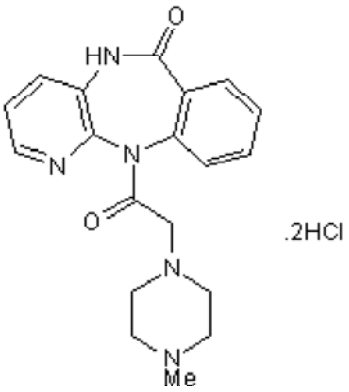
Batch Molecular Formula: $C_{19}H_{21}N_5O_2.2HCl.1¼H_2O$

Batch Molecular Weight: 446.85

Physical Appearance: White crystalline solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 100 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:

Daeffler *et al* (1999) Inverse agonist activity of pirenzepine at M_2 muscarinic acetylcholine receptors. Br.J.Pharmacol. ***126*** 1246. PMID: 10205015.

Eglen *et al* (1996) Muscarinic receptor subtypes and smooth muscle function. Pharmacol.Rev. ***48*** 531. PMID: 8981565.

Doods *et al* (1994) Pharmacological profile of selective muscarinic receptor antagonists on guinea-pig ileal smooth muscle. Eur.J.Pharmacol. ***253*** 275. PMID: 8200421.

Hammer *et al* (1980) Pirenzepine distinguishes between different subclasses of muscarinic receptors. Nature ***283*** 90. PMID: 7350532.

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956