

**Product Name:** AQ-RA 741

**Catalog No.:** 2292

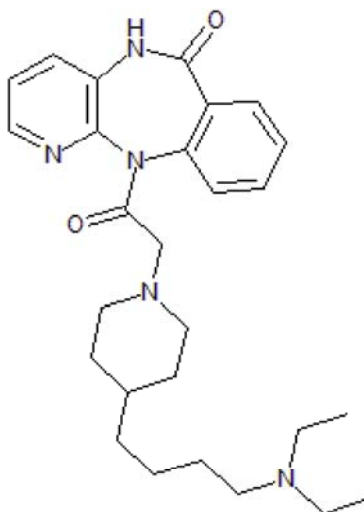
**Batch No.:** 1

CAS Number: 123548-16-3

IUPAC Name: 11-[[4-[4-(Diethylamino)butyl]-1-piperidiny]acetyl]-5,11-dihydro-6H-pyrido[2,3-b][1,4]benzodiazepin-6-one

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>27</sub>H<sub>37</sub>N<sub>5</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 463.62  
**Physical Appearance:** White solid  
**Solubility:** 1eq. HCl to 100 mM  
DMSO to 100 mM  
ethanol to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.45 (Dichloromethane:Methanol:Ammonia soln. [95:5:0.1])  
**HPLC:** Shows >99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	69.95	8.04	15.11
Found	70	8.1	15.11

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

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**Description:**

High affinity, selective muscarinic M<sub>2</sub> receptor antagonist (pK<sub>i</sub> values are 8.3, 7.7 and 6.82 for M<sub>2</sub>, M<sub>1</sub> and M<sub>3</sub> receptors, respectively). Displays cardioselectivity in vivo, over intestinal, tracheal and bladder muscarinic receptors; inhibits vagally and agonist-induced bradycardia.

**Physical and Chemical Properties:**

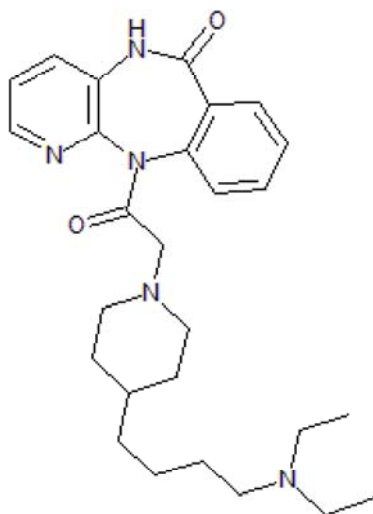
Batch Molecular Formula: C<sub>27</sub>H<sub>37</sub>N<sub>5</sub>O<sub>2</sub>

Batch Molecular Weight: 463.62

Physical Appearance: White solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

1eq. HCl to 100 mM  
DMSO to 100 mM  
ethanol 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:**

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

**Doods et al** (1991) Cardioselectivity of AQ-RA 741, a novel tricyclic antimuscarinic drug. *Eur.J.Pharmacol.* **192** 147. PMID: 2040358.

**Dorje et al** (1991) Antagonist binding profiles of five cloned human muscarinic receptor subtypes. *J.Pharmacol.Exp.Ther.* **256** 727. PMID: 1994002.

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