

Certificate of Analysis

www.tocris.com

Product Name: RX 821002 hydrochloride

Catalog No.: 1324

Batch No.: 4

CAS Number: 109544-45-8

IUPAC Name: 2-(2,3-Dihydro-2-methoxy-1,4-benzodioxin-2-yl)-4,5-dihydro-1H-imidazole hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₂H₁₄N₂O₃·HCl

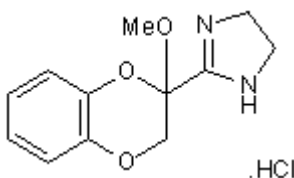
Batch Molecular Weight: 270.72

Physical Appearance: White solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.67 (Chloroform:Methanol [4:1])

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.24	5.58	10.35
Found	53.05	5.5	10.26

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

Product Name: RX 821002 hydrochloride

Catalog No.: 1324

Batch No.: 4

CAS Number: 109544-45-8

IUPAC Name: 2-(2,3-Dihydro-2-methoxy-1,4-benzodioxin-2-yl)-4,5-dihydro-1H-imidazole hydrochloride

Description:

Potent, selective α_2 -adrenoceptor antagonist with very low affinity for imidazoline sites. Displays selectivity for the α_{2D} over the α_{2A} subtypes (pK_d values are 9.7 and 8.2 respectively).

Physical and Chemical Properties:

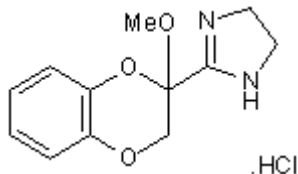
Batch Molecular Formula: C₁₂H₁₄N₂O₃.HCl

Batch Molecular Weight: 270.72

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM
DMSO 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:

O'Rourke et al (1994) Characterisation of [³H]RX 821002 binding to *alpha*-2 adrenergic receptor subtypes. J.Pharmacol.Exp.Ther. **268** 1362. PMID: 7908054.

Erdbrugger et al (1995) Does [³H]2-methoxy-idazoxan (RX 821002) detect more *alpha*-2-adrenoceptor agonist high-affinity sites than [³H]rauwolscine? A comparison of nine tissues and cell lines. J.Pharmacol.Exp.Ther. **273** 1287. PMID: 7791100.

Trendelenburg et al (1996) Antagonists that differentiate between α_{2A} - and α_{2D} -adrenoceptors. Naunyn Schmiedebergs Arch.Pharmacol. **353** 245. PMID: 8692278.

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

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