

Certificate of Analysis

Product Name: Buspirone hydrochloride

Catalog No.: 0962

Batch No.: 3

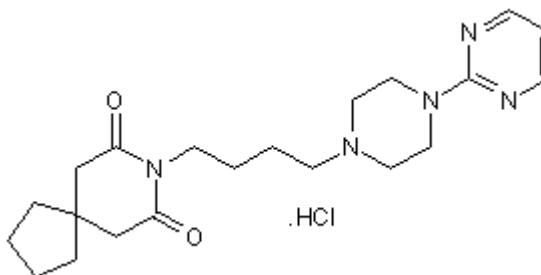
CAS Number: 33386-08-2

EC Number: 251-489-4

IUPAC Name: 8-[4-[4-(2-Pyrimidinyl)-1-piperazinyl]butyl]-8-azaspiro[4,5]decane-7,9-dione hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₃₁N₅O₂·HCl
Batch Molecular Weight: 421.97
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 water to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59.77	7.64	16.6
Found	59.7	7.59	16.77

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

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Description:

Classic 5-HT_{1A} partial agonist with relatively high affinity (K_i = 9.3 - 29.5 nM). A clinically effective anxiolytic.

Physical and Chemical Properties:

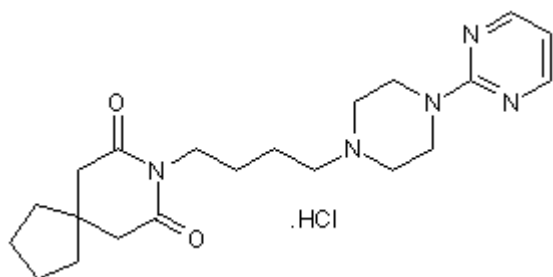
Batch Molecular Formula: C₂₁H₃₁N₅O₂.HCl

Batch Molecular Weight: 421.97

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

DMSO to 100 mM

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:

Merck Index **12** 1528.

Goa and Ward (1986) Buspirone - a preliminary review on its pharmacological properties and therapeutic efficacy as an anxiolytic. *Drugs* **32** 114. PMID: 2874976.

Cao and Rodgers (1997) Comparative behavioural profiles of buspirone and its metabolite 1-(2-pyrimidinyl)-piperazine (1-PP) in the murine elevated plus-maze. *Neuropharmacology* **36** 1089. PMID: 9294974.

Gobert et al (1999) Buspirone modulates basal and fluoxetine-stimulated dialysate levels of dopamine, noradrenaline and serotonin in the frontal cortex of freely moving rats: activation of serotonin_{1A} receptors and blockade of α₂-adrenoceptors underlie its action. *Neuroscience* **93** 1251. PMID: 10501449.

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