

## Certificate of Analysis

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**Product Name:** ST 91

**Catalog No.:** 2638

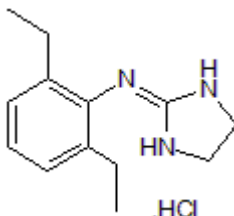
**Batch No.:** 1

CAS Number: 4749-61-5

IUPAC Name: *N*-(2,6-Diethylphenyl)-4,5-dihydro-1*H*-imidazol-2-amine hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>13</sub> H <sub>19</sub> N <sub>3</sub> .HCl
<b>Batch Molecular Weight:</b>	253.77
<b>Physical Appearance:</b>	White crystalline solid
<b>Solubility:</b>	water to 100 mM DMSO to 100 mM ethanol to 100 mM
<b>Storage:</b>	Desiccate at +4°C
<b>Batch Molecular Structure:</b>	



### 2. ANALYTICAL DATA

<b>TLC:</b>	R <sub>f</sub> = 0.5 (Dichloromethane:Methanol [9:1])
<b>Melting Point:</b>	At 212°C
<b>HPLC:</b>	Shows >99.9% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure
<b>Microanalysis:</b>	

	Carbon	Hydrogen	Nitrogen
Theoretical	61.53	7.94	16.56
Found	61.44	8.05	16.51

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

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**Description:**

$\alpha_2$ -adrenoceptor agonist that does not cross the blood brain barrier. Displays ~ 120-fold selectivity for  $\alpha_2$  receptors over  $\alpha_1$  receptors and acts predominantly at non- $\alpha_{2A}$ -adrenoceptors which may be of the  $\alpha_{2C}$  subtype. Antinociceptive; increases tail-flick latencies in Sasco and Harlan rats.

**Physical and Chemical Properties:**

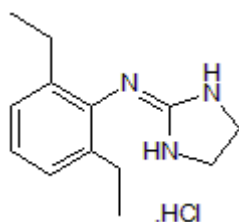
Batch Molecular Formula: C<sub>13</sub>H<sub>19</sub>N<sub>3</sub>.HCl

Batch Molecular Weight: 253.77

Physical Appearance: White crystalline solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Takano and Yaksh** (1992) Characterization of the pharmacology of intrathecally administered *alpha*-2 agonists and antagonists in rats. *J.Pharmacol.Exp.Ther.* **261** 764. PMID: 1349648.

**Celly et al** (1999) Cardiopulmonary effects of the  $\alpha_2$ -adrenoceptor agonists medetomidine and ST-91 in anesthetized sheep. *J.Pharmacol.Exp.Ther.* **289** 712. PMID: 10215644.

**Graham et al** (2000) Synergistic interactions between two  $\alpha_2$ -adrenoceptor agonists, dexmedetomidine and ST-91, in two substrains of Sprague-Dawley rats. *Pain* **85** 135. PMID: 10692612.

**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**

water 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.

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