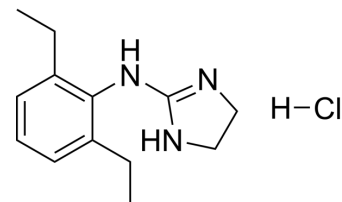


## ST91

<b>Cat. No.:</b>	HY-103203
<b>CAS No.:</b>	4749-61-5
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>20</sub> ClN <sub>3</sub>
<b>Molecular Weight:</b>	253.77
<b>Target:</b>	Adrenergic Receptor
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 125 mg/mL (492.57 mM; Need ultrasonic)					
	<b>Preparing Stock Solutions</b>	<b>Solvent</b>	<b>Mass</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>Concentration</b>				
		<b>1 mM</b>		3.9406 mL	19.7029 mL	39.4058 mL
		<b>5 mM</b>		0.7881 mL	3.9406 mL	7.8812 mL
	<b>10 mM</b>		0.3941 mL	1.9703 mL	3.9406 mL	
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (8.20 mM); Clear solution  2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (8.20 mM); Clear solution					

### BIOLOGICAL ACTIVITY

<b>Description</b>	ST91 is a α <sub>2</sub> -adrenoceptor (α <sub>2</sub> AR) agonist. ST91 activates both α <sub>2A</sub> AR and non-α <sub>2A</sub> AR subtypes to produce spinal antinociception <sup>[1][2][3]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	α <sub>2</sub> -adrenergic receptor
<b>In Vitro</b>	ST91 decreases the viability, proliferation and mitochondrial function of B16F10 cells <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	ST91 (intrathecal administration) produces antinociception in rats <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

---

## REFERENCES

- [1]. Graham BA, et, al. Synergistic interactions between two alpha(2)-adrenoceptor agonists, dexmedetomidine and ST-91, in two substrains of Sprague-Dawley rats. *Pain*. 2000 Mar;85(1-2):135-43.
- [2]. Maccari S, et, al.  $\alpha$ -Adrenoceptor stimulation attenuates melanoma growth in mice. *Br J Pharmacol*. 2022 Apr;179(7):1371-1383.
- [3]. Stone LS, et, al. ST91 [2-(2,6-diethylphenylamino)-2-imidazoline hydrochloride]-mediated spinal antinociception and synergy with opioids persists in the absence of functional alpha-2A- or alpha-2C-adrenergic receptors. *J Pharmacol Exp Ther*. 2007 Dec;323(3):899-906.
- 

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA