

# Tandospirone

**Catalog No: tcsc1709**



## Available Sizes

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

87760-53-0

**Formula:**

$C_{21}H_{29}N_5O_2$

**Pathway:**

Neuronal Signaling;GPCR/G Protein

**Target:**

5-HT Receptor;5-HT Receptor

**Purity / Grade:**

>98%

**Solubility:**

H<sub>2</sub>O :

**Alternative Names:**

SM-3997

**Observed Molecular Weight:**

383.49

## Product Description

Tandospirone(SM-3997) is a potent and selective 5-HT<sub>1A</sub> receptor partial agonist (K<sub>i</sub> = 27 nM) that displays selectivity over SR-2, SR-1C, α<sub>1</sub>, α<sub>2</sub>, D<sub>1</sub> and D<sub>2</sub> receptors (K<sub>i</sub> values ranging from 1300-41000 nM).

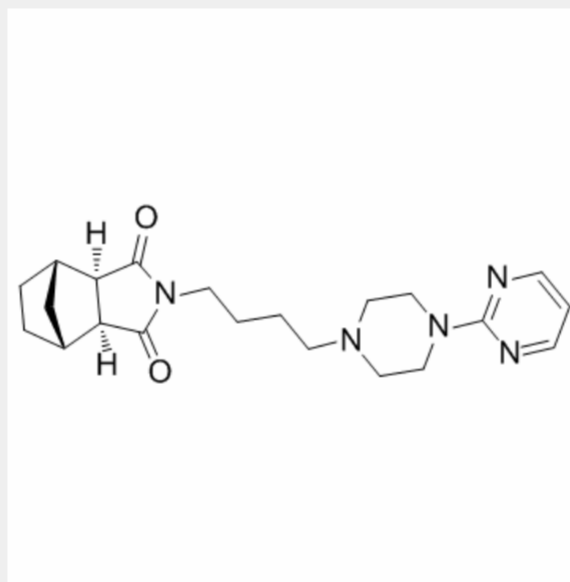
IC50 Value: 27±5 nM(Ki) [1]

Target: 5-HT1A

in vitro: Tansospirone is most potent at the 5-HT1A receptor, displaying a Ki value of 27 +/- 5 nM. The agent is approximately two to three orders of magnitude less potent at 5-HT2, 5-HT1C, alpha 1-adrenergic, alpha 2-adrenergic, and dopamine D1 and D2 receptors (Ki values ranging from 1300 to 41000 nM). Tansospirone is essentially inactive at 5-HT1B receptors; 5-HT uptake sites; beta-adrenergic, muscarinic cholinergic, and benzodiazepine receptors [1]. 3H-SM-3997 bound rapidly, reversibly and in a saturable manner with high affinity to rat brain hippocampal membranes (Kd = 9.4 nM, Bmax = 213 fmol/mg protein) [2].

in vivo: Chronic treatment with tansospirone, at 0.2 and 1.0mg/kg/day, but not 2.0mg/kg/day, attenuated footshock stress-induced eLAC elevation in the mPFC [3]. Rats were acutely administered tansospirone (0, 0.1, and 1 mg/kg, i.p.). Tansospirone decreased the number of premature responses, an index of impulsive action, in a dose-dependent manner [4].

Toxicity: It is not believed to be addictive but it is known to produce mild withdrawal effects (e.g. anorexia) after abrupt discontinuation.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!