

# YM348

**Catalog No: tcsc0018481**



## Available Sizes

**Size:** 1mg

**Size:** 5mg

**Size:** 10mg



## Specifications

**CAS No:**

372163-84-3

**Formula:**

$C_{14}H_{17}N_3O$

**Pathway:**

Neuronal Signaling;GPCR/G Protein

**Target:**

5-HT Receptor;5-HT Receptor

**Purity / Grade:**

>98%

**Solubility:**

DMSO

**Observed Molecular Weight:**

243.3

## Product Description

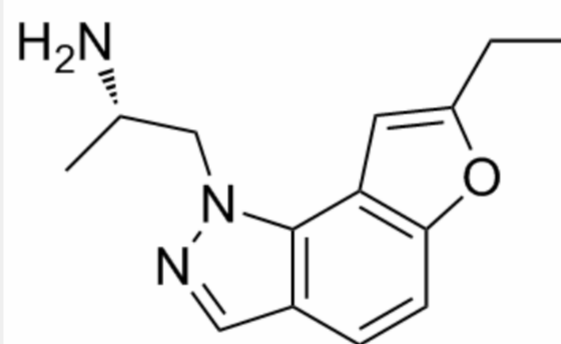
YM348 is a potent and orally active **5-HT<sub>2C</sub> receptor** agonist, which shows a high affinity for cloned human **5-HT<sub>2C</sub> receptor** (**K<sub>i</sub>**: 0.89 nM).

IC50 & Target:  $K_i$ :  $0.89 \pm 0.05$  nM (5-HT<sub>2C</sub> receptor),  $2.5 \pm 0.5$  nM (5-HT<sub>2B</sub> receptor),  $13 \pm 2$  nM (5-HT<sub>2A</sub> receptor)<sup>[1]</sup>

EC50:  $1.0 \pm 0.2$  nM (5-HT<sub>2C</sub> receptor),  $3.2 \pm 3$  (5-HT<sub>2B</sub> receptor) ,  $93 \pm 10$  nM (5-HT<sub>2A</sub> receptor)<sup>[1]</sup>

**In Vitro:** YM348 has high affinity for cloned human 5-HT<sub>2C</sub> receptors with a  $K_i$  value of 0.89 nM and lower affinities for human-cloned 5-HT<sub>2B</sub> ( $K_i$ : 2.5 nM) and 5-HT<sub>2A</sub> receptors ( $K_i$ : 13 nM). To assess the binding specificity of YM348, a broad evaluation of an additional 46 binding sites including several other 5-HT receptor subtypes (1A, 1B, 1D, 3, 4, 5A, 6, 7) is performed. IC<sub>50</sub> values of YM348 are found to be  $>1$   $\mu$ M for all of the binding sites except for the human 5-HT<sub>1A</sub> receptors ( $K_i$ : 130 nM), bovine 5-HT<sub>1D</sub> receptors ( $K_i$ : 481 nM), human 5-HT<sub>7</sub> receptors ( $K_i$ : 177 nM), and human  $\alpha_{2A}$  receptors ( $K_i$ : 126 nM). YM348 exhibits a full-agonistic activity on human 5-HT<sub>2A</sub> and 5-HT<sub>2B</sub> receptors. The EC<sub>50</sub> values of YM348 for 5-HT<sub>2C</sub>, 5-HT<sub>2A</sub>, and 5-HT<sub>2B</sub> receptors are 1.0, 93 and 3.2 nM, respectively<sup>[1]</sup>.

**In Vivo:** Oral administration of YM348 induces penile erections and hypolocomotion in rats, being completely inhibited by a selective 5-HT<sub>2C</sub> receptor antagonist, SB242084. YM348 inhibits spontaneous activity in a dose-dependent manner with a minimum effective dose of 0.203 mg/kg<sup>[1]</sup>.



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