

# 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

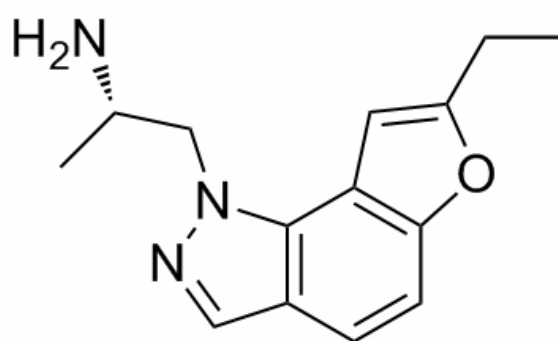
YM348 is a potent and orally active **5-HT<sub>2C</sub> receptor** agonist, which shows a high affinity for cloned human **5-HT<sub>2C</sub> receptor** ( $K_i$ : 0.89 nM).

IC<sub>50</sub> & Target: K<sub>i</sub>: 0.89±0.05 nM (5-HT<sub>2C</sub> receptor), 2.5±0.5 nM (5-HT<sub>2B</sub> receptor), 13±2 nM (5-HT<sub>2A</sub> receptor)<sup>[1]</sup>

EC<sub>50</sub>: 1.0±0.2 nM (5-HT<sub>2C</sub> receptor), 3.2±3 (5-HT<sub>2B</sub> receptor) , 93±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<sub>i</sub> value of 0.89 nM and lower affinities for human-cloned 5-HT<sub>2B</sub> (K<sub>i</sub>: 2.5 nM) and 5-HT<sub>2A</sub> receptors (K<sub>i</sub>: 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 μM for all of the binding sites except for the human 5-HT<sub>1A</sub> receptors (K<sub>i</sub>: 130 nM), bovine 5-HT<sub>1D</sub> receptors (K<sub>i</sub>: 481 nM), human 5-HT<sub>7</sub> receptors (K<sub>i</sub>: 177 nM), and human α<sub>2A</sub> receptors (K<sub>i</sub>: 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!