Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

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$_{2C}$ receptor** agonist, which shows a high affinity for cloned human **5-HT$_{2C}$ receptor** (K_i: 0.89 nM).

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IC50 & Target: Ki: 0.89±0.05 nM (5-HT_{2C} receptor), 2.5±0.5 nM (5-HT_{2B} receptor), 13±2 nM (5-HT_{2A} receptor)[1]

EC50: 1.0±0.2 nM (5-HT_{2C} receptor), 3.2±3 (5-HT_{2B} receptor) , 93±10 nM (5-HT_{2A} receptor)[1]

In Vitro: YM348 has high affinity for cloned human 5-HT_{2C} receptors with a K_i value of 0.89 nM and lower affinities for human-cloned 5-HT_{2B} (K_i: 2.5 nM) and 5-HT_{2A} 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_{50} values of YM348 are found to be >1 μM for all of the binding sites except for the human 5-HT_{1A} receptors (K_i: 130 nM), bovine 5-HT_{1D} receptors (K_i: 481 nM), human 5-HT_7 receptors (K_i: 177 nM), and human α_{2A} receptors (K_i: 126 nM).YM348 exhibits a full-agonistic activity on human 5-HT_{2A} and 5-HT_{2B} receptors. The EC_{50} values of YM348 for 5-HT_{2C}, 5-HT_{2A}, and 5-HT_{2B} receptors are 1.0, 93 and 3.2 nM, respectively[1].

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