

Tadalafil

Catalog No: tcsc1414



Available Sizes

Size: 50mg

Size: 100mg

Size: 500mg



Specifications

CAS No:

171596-29-5

Formula:

$C_{22}H_{19}N_3O_4$

Pathway:

Metabolic Enzyme/Protease

Target:

Phosphodiesterase (PDE)

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 52 mg/mL (133.54 mM)

Alternative Names:

IC-351

Observed Molecular Weight:

389.4

Product Description

Tadalafil is a PDE5 inhibitor with an IC50 value of 1.8 nM.

IC50 Value: 1.8±0.4nM [1]

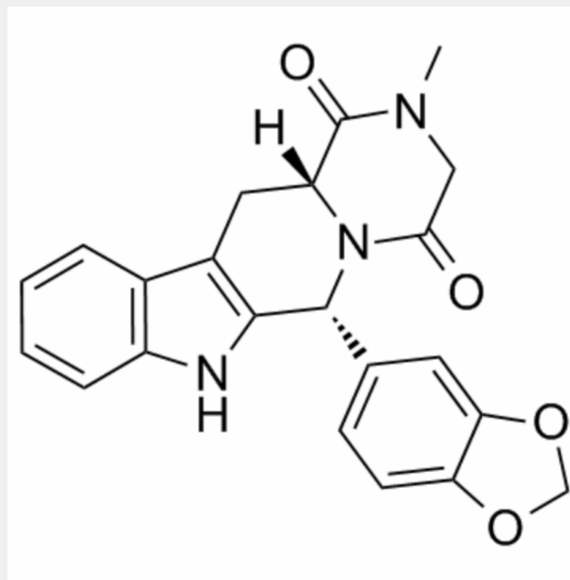
Target: PDE 5

Tadalafil is marketed in pill form for treating erectile dysfunction(ED) under the name Cialis, and under the name Adcirca for the treatment of pulmonary arterial hypertension. Tadalafil can elevate the level of cGMP in the corpus cavernosum and effectively improve ED of various causes and degrees.

in vitro: Biochemical potencies (affinities) of these compounds for PDE5 determined by IC(50), K(D) (isotherm), K(D) (dissociation rate), and K(D) ((1/2) EC(50)), respectively, were the following: sildenafil (3.7 +/- 1.4, 4.8 +/- 0.80, 3.7 +/- 0.29, and 11.7 +/- 0.70 nM), tadalafil (1.8 +/- 0.40, 2.4 +/- 0.60, 1.9 +/- 0.37, and 2.7 +/- 0.25 nM); and vardenafil (0.091 +/- 0.031, 0.38 +/- 0.07, 0.27 +/- 0.01, and 0.42 +/- 0.10 nM). Thus, absolute potency values were similar for each inhibitor, and relative potencies were vardenafil >> tadalafil > sildenafil [1]. 0.5 ml tadalafil solutions with different concentrations were added (0.2, 0.1, 0.05 and 0.025 µg ml⁻¹, respectively) into semen samples. In both groups, samples treated with 0.2 µg ml⁻¹ tadalafil had significant increase in sperm motility after 2 h incubation [2].

in vivo: The Tadalafil-treated group showed enhanced erectile function (intracavernosal pressure/mean arterial pressure) at 0.3, 0.5, 1, 3, and 5 Hz compared with diabetic group values at the respective frequencies (P

Clinical trial: Study the Safety and Effectiveness of Tadalafil in Men With Problems Getting or Maintaining an Erection When Taken Prior to Desiring an Erection. Phase 3



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