



## **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  $\mu$ g ml-1, respectively) into semen samples. In both groups, samples treated with 0.2  $\mu$ g 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

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