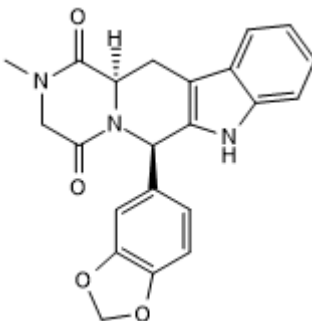


Product Name: Tadalafil **Catalog No.:** 6311 **Batch No.:** 1
CAS Number: 171596-29-5
IUPAC Name: (6*R*,12*aR*)-6-(1,3-Benzodioxol-5-yl)-2,3,6,7,12,12*a*-hexahydro-2-methylpyrazino[1',2':1,6]pyrido[3,4-*b*]indole-1,4-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₁₉N₃O₄
Batch Molecular Weight: 389.4
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
¹H NMR: consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +66.4 (Concentration = 1, Solvent = Chloroform)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	67.86	4.92	10.79
Found	67.53	4.94	10.84

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent and highly selective PDE5 inhibitor (IC₅₀ = 5 nM). Exhibits > 2000-fold selectivity for PDE5 over PDEs 1,2,3 and 4 and 1000-fold selectivity over PDE6. Reduces blood pressure in hypertensive rats. Also delays tumor growth in a mouse model via inhibition of MDSC-mediated immunosuppression. Orally bioavailable.

Physical and Chemical Properties:

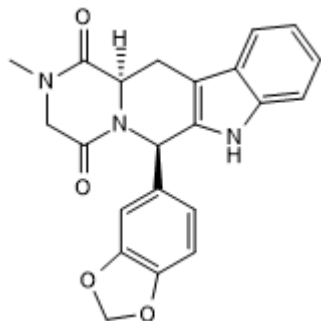
Batch Molecular Formula: C₂₂H₁₉N₃O₄

Batch Molecular Weight: 389.4

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Serafini et al (2006) Phosphodiesterase-5 inhibition augments endogenous antitumor immunity by reducing myeloid-derived suppressor cell function. *J.Exp.Med.* **203** 2691. PMID: 17101732.

Daugan et al (2003) The discovery of tadalafil: a novel and highly selective PDE5 inhibitor. 2: 2,3,6,7,12,12*a*-hexahydropyrazino [1',2':1,6]pyrido[3,4-*b*]indole-1,4-dione analogues. *J.Med.Chem.* **46** 4533. PMID: 14521415.

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