

Catalog # 10-1221 Sildenafil citrate

CAS# 171599-83-0

1-[[3-(4,7-Dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-methylpiperazine citrate Lot # X108345

Potent and selective phosphodiesterase (PDE5) inhibitor, IC₅₀=4 nM).¹⁻³ Clinically useful agent for male erectile disfunction⁴ and pulmonary hypertension⁵.

- Terrett et al. (1996), sildenafil (VIAGRA™), a potent and selective inhibitor of type 5 cGMP phosphodiesterase with utility for the treatment of male erectile dysfunction; Bioorg. Med. Chem. Lett., 6 1819
- Ballard et al. (1998), Effects of sildenafil on the relaxation of human corpus cavernosum tissue in vitro and on the activities of cyclic nucleotide phosphodiesterase isozymes; J. Urol., 159 2164
- 3) Turko et al. (1999), Inhibition of cyclic GMP-binding cyclic GMP-specific phosphodiesterase (Type 5) by sildenafil and related compounds; Mol. Pharmacol., **56** 124
- 4) Teixeira et al. (2006), differential effects of the phosphodiesterase type 5 inhibitors sildenafil, vardenafil, and tadalafil in rat aorta; J. Pharmacol. Exp. Therap., **316** 654
- 5) Ghofrani et al. (2006), Sildenafil: from angina to erectile dysfunction to pulmonary hypertension and beyond; Nat. Rev. Drug Discov., 5 689

PHYSICAL DATA

Molecular Weight: 666.70

Moecular Formula: C₂₂H₃₀N₆O₄S·C₆H₈O₇

Purity: 98% by HPLC

NMR: (Conforms)

Solubility: DMSO (up to 60 mg/ml)

Physical Description: White solid

Storage and Stability: Store as supplied desiccated at room temperature for up to 1 year from the date of purchase.

Solutions in DMSO may be stored at -20°C for up to 3 months

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