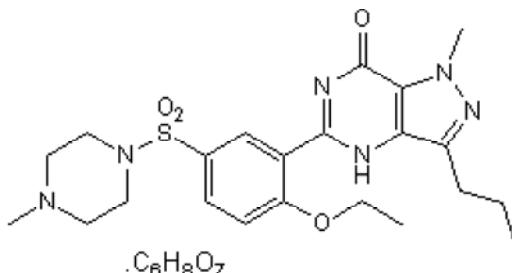


**Certificate of Analysis**[www.tocris.com](http://www.tocris.com)**Product Name:** Sildenafil citrate**Catalog No.:** 3784**Batch No.:** 1

CAS Number: 171599-83-0

IUPAC Name: 1-[[3-(4,7-Dihydro-1-methyl-7-oxo-3-propyl-1*H*-pyrazolo[4,3-*d*]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-methylpiperazine citrate**1. PHYSICAL AND CHEMICAL PROPERTIES****Batch Molecular Formula:** C<sub>22</sub>H<sub>30</sub>N<sub>6</sub>O<sub>4</sub>S.C<sub>6</sub>H<sub>8</sub>O<sub>7</sub>.1/4H<sub>2</sub>O**Batch Molecular Weight:** 671.2**Physical Appearance:** White solid**Solubility:** DMSO to 100 mM**Storage:** Desiccate at RT**Batch Molecular Structure:****2. ANALYTICAL DATA****HPLC:** Shows 99.9% purity**<sup>1</sup>H NMR:** Consistent with structure**Mass Spectrum:** Consistent with structure**Microanalysis:** Carbon Hydrogen Nitrogen

Theoretical 50.11 5.78 12.52

Found 49.97 5.8 12.36

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

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## Product Information

[www.tocris.com](http://www.tocris.com)

**Product Name:** Sildenafil citrate

CAS Number: 171599-83-0

IUPAC Name: 1-[[3-(4,7-Dihydro-1-methyl-7-oxo-3-propyl-1*H*-pyrazolo[4,3-*d*]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-methylpiperazine citrate

**Catalog No.:** 3784

**Batch No.:** 1

EC Number:

**Description:**

Sildenafil citrate is an orally active, potent inhibitor of phosphodiesterase 5 (PDE5) ( $IC_{50} = 4$  nM). Enhances nitric oxide-dependent relaxation of human corpus cavernosum in vitro. Sildenafil citrate promotes mobilization of hematopoietic stem cells (HSCs) in combination with AMD 3100 (Cat. No. 3299). Reduces pulmonary pressure and edema.

**Physical and Chemical Properties:**

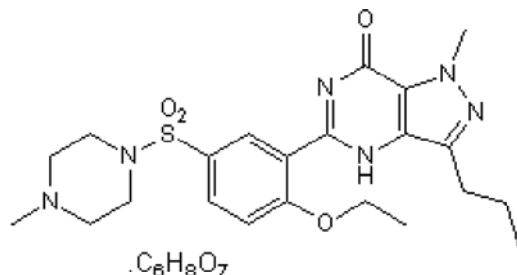
Batch Molecular Formula:  $C_{22}H_{30}N_6O_4S.C_6H_8O_7.1/4H_2O$

Batch Molecular Weight: 671.2

Physical Appearance: White solid

**Minimum Purity:**  $\geq 99\%$

**Batch Molecular Structure:**



**References:**

**Smith-Berdan *et al*** (2019) Viagra enables efficient, single-day hematopoietic stem cell mobilization. *Stem Cell Reports.* PMID: 31607567.

**Ghofrani *et al*** (2006) Sildenafil: from angina to erectile dysfunction to pulmonary hypertension and beyond. *Nat.Rev.Drug Discov.* **5** 689. PMID: 16883306.

**Turko *et al*** (1999) Inhibition of cyclic cGMP-binding cyclic GMP-specific phosphodiesterase (type 5) by silde. and related compounds. *Mol.Pharmacol.* **56** 124. PMID: 10385692.

**Storage:** Desiccate at RT

**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.

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