Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

# Sildenafil

## Catalog No: tcsc1577

### Available Sizes

**Size:** 50mg

**Size:** 100mg

**Size:** 200mg

### Specifications

**CAS No:**
139755-83-2

**Formula:**
$C_{22}H_{30}N_6O_4S$

**Pathway:**
Metabolic Enzyme/Protease;Autophagy

**Target:**
Phosphodiesterase (PDE);Autophagy

**Purity / Grade:**
>98%

**Solubility:**
DMSO : ≥ 29 mg/mL (61.11 mM)

**Alternative Names:**
UK-92480

**Observed Molecular Weight:**
474.58

## Product Description

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Sildenafil is a potent phosphodiesterase type 5 (**PDE5**) inhibitor with **$IC_{50}$** of 5.22 nM.

IC50 & Target: IC50: 5.22 nM (PDE 5)[1]

***In Vitro:*** Pretreatment with 1 μM Sildenafil potentiates the phosphorylation of ERK1/ERK2, an increase in the percentage of cells in S phase and cell proliferation, compared with serotonin stimulation alone (P[2].

***In Vivo:*** In the dog model of erection, Sildenafil citrate significantly increases ICP and ICP/BP but shows no significant effect on BP compared with vehicle[1]. Sildenafil treatment significantly decreases the number of $TL^+$-cells at 10 but not 0.5 mg/kg. At this time point, cells positive for the M1-like marker $COX\text{-}2^+$ are found in the ischemic core in PBS-treated animals, whereas they are mostly observed in the penumbra in 10 mg/kg (but not 0.5 mg/kg) Sildenafil-treated animals. In contrast, 8 days after pMCAo the number of microglia/macrophages stained by Iba-1 are significantly reduced by Sildenafil treatment (0.5 and/or 10 mg/kg dose)[3]. Sildenafil citrate has been reported to decrease flap necrosis in preclinical animal models by increasing the secretion of growth factors (FGF and VEGF), and histologically is shown to be effective in rat cavernous nerve architecture[4].