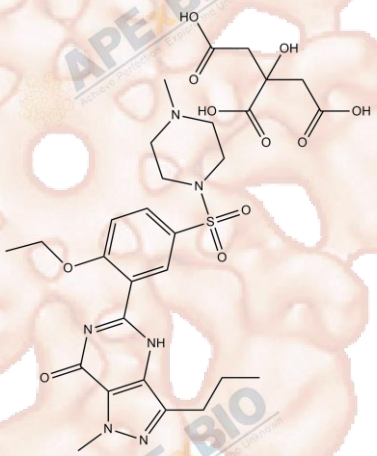
Product Data Sheet

Sildenafil Citrate



Cat. No.:	A4321
CAS No.:	171599-83-0
Formula:	C22H30N6O4S·C6H8O7
M.Wt:	666.7
Synonyms:	
Target:	Metabolism
Pathway:	PDE
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

⩾25.35 mg/mL in DMSO; insoluble in EtOH; ⩾2.97 mg/mL in H2O with gentle warming and ultrasonic

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	1.4999 mL	7.4996 mL	14.9993 mL
5 mM	0.3000 mL	1.4999 mL	2.9999 mL
10 mM	0.1500 mL	0.7500 mL	1.4999 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Treat erectile dysfunction and PAH
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	PASMCs
Preparation method：	The solubility of this compound in DMSO is > 25.4 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.

	Reacting conditions:	1 μM
	Applications:	In PASMCs, pretreatment with 1 μM Sildenafil Citrate increased the phosphorylation of ERK1/ERK2, the percentage of cells in S phase, as well as cell proliferation, compared with serotonin stimulation alone. Furthermore, pretreatment with 10 μM U0126 for 30 mins prevented Sildenafil Citrate-induced increases in the phosphorylation of ERK1/ERK2, and abolished Sildenafil Citrate-induced cell cycle progression and PASMC proliferation.
In Vivo	**Animal experiment**	
	Animal models:	Hypercholesterolemic MetS rabbits
	Dosage form:	5 mg/kg/day; p.o.
	Applications:	In hypercholesterolemic MetS rabbits, Sildenafil Citrate inhibited the development of endothelial dysfunction and Erectile dysfunction (ED). Moreover, Sildenafil Citrate significantly improved relaxation responses of cavernosal tissues. In addition, compared with the control group, Sildenafil Citrate maintained the in vitro erectile responses of the corporal tissue strips in MetS rabbits.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Li BB, Jiang Z, Sheng JY, Yao K. Sildenafil potentiates the proliferative effect of porcine pulmonary artery smooth muscle cells induced by serotonin in vitro. Chin Med J (Engl). 2011 Sep;124(17):2733-40.

[2]. Erden Y, Korgal E, Dundar G, Ayan S, Gokce G, Yildirim S, Gultekin EY. In-vitro effects of PDE5 inhibitor and statin treatment on the contractile responses of experimental MetS rabbit's cavernous smooth muscle Arch Ital Urol Androl. 2014 Mar 28;86(1):33-8.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable

under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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