

**Product Name** : Sildenafil

**Synonyms** : —

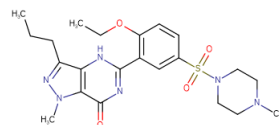
**Cat No.** : M11659

**CAS Number** : 139755-83-2

**Molecular Formula** : C<sub>22</sub>H<sub>30</sub>N<sub>6</sub>O<sub>4</sub>S

**Formula Weight** : 474.58

**Chemical Name** : —



**Description** : Sildenafil is a vasoactive agent used to treat erectile dysfunction and reduce symptoms in patients with pulmonary arterial hypertension (PAH). Sildenafil elevates levels of the second messenger, cGMP, by inhibiting its breakdown via phosphodiesterase type 5 (PDE5). PDE5 is found in particularly high concentrations in the corpus cavernosum, erectile tissue of the penis. It is also found in the retina and vascular endothelium. Increased cGMP results in vasodilation which facilitates generation and maintenance of an erection. The vasodilatory effects of sildenafil also help reduce symptoms of PAH.

**Pathway** : Angiogenesis

**Target** : PDE

**Receptor** : PDE5

**Solubility** : Water: 3.5 mg/mL

**SMILES** : CCCC1=NN(C)C2=C1NC(=NC2=O)C1=C(OCC)C=CC(=C1)S(=O)(=O)N1CCN(C)CC1

**Storage** : (-20°C)

**Stability** : ≥ 2 years

**Reference** :

1.Nehra A, et al. World J Urol, 2001, 19(1), 40-45.