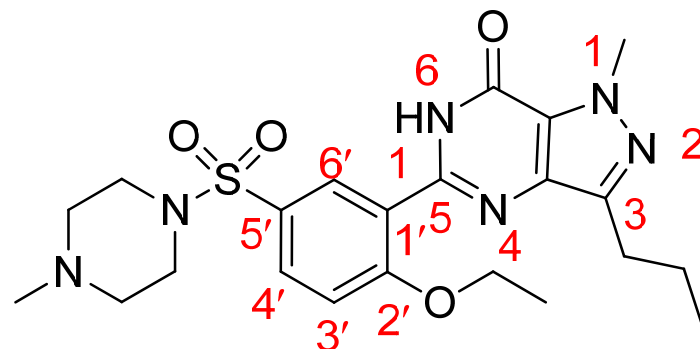


# Drugs for erectile dysfunction

## Sildenafil

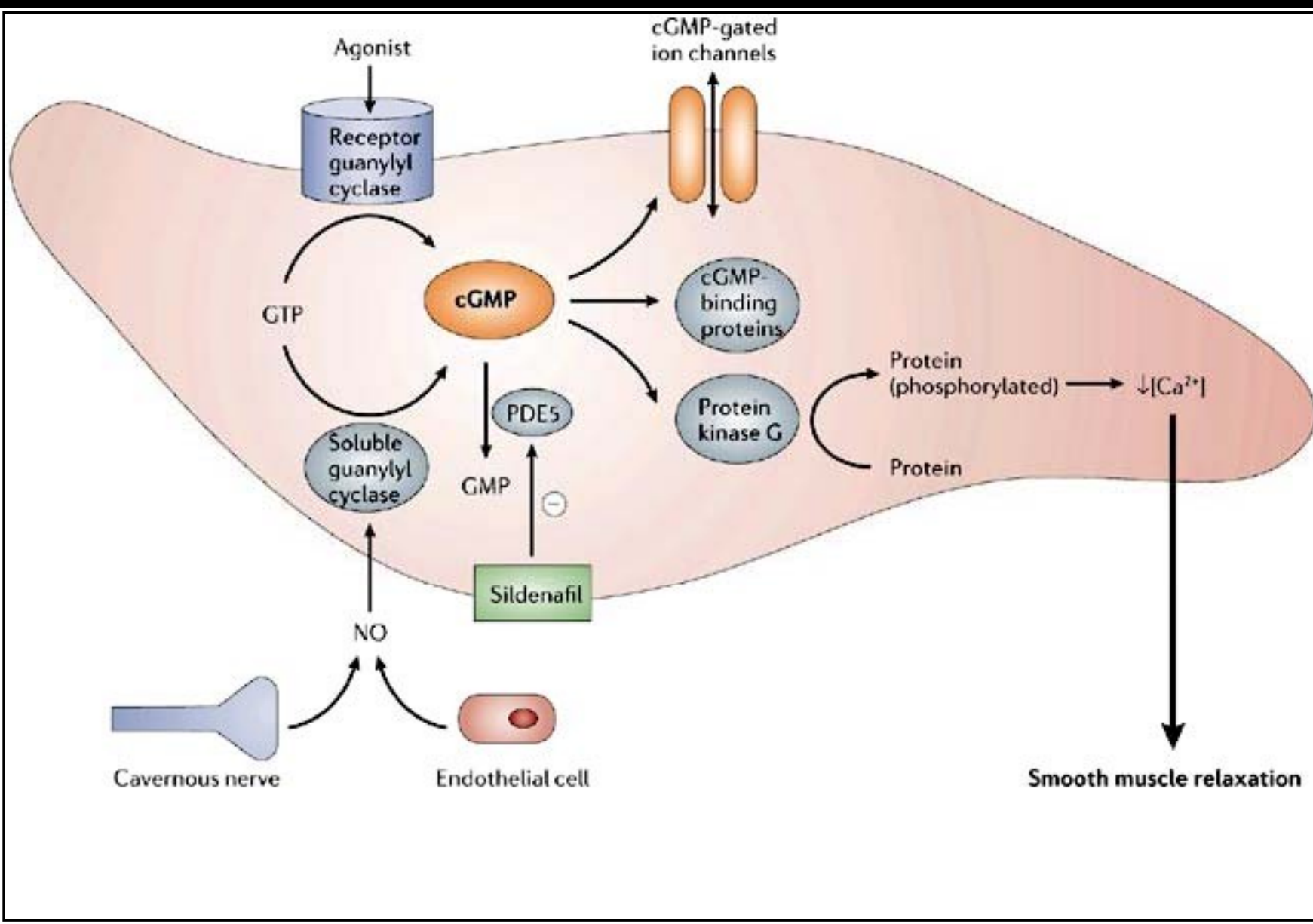


IUPAC: 5-[2-ethoxy-5-(4-methylpiperazin-1-yl)sulfonylphenyl]-1-methyl-3-propyl-6H-pyrazolo[4,3-d]pyrimidin-7-one

### MOA:

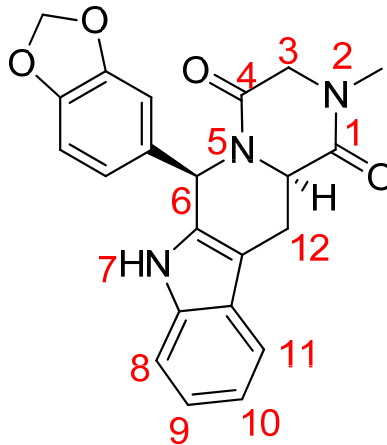
- This response is mediated by the release of nitric oxide (NO) from nerve terminals and endothelial cells, which stimulates the synthesis of cGMP in smooth muscle cells.
- Cyclic GMP causes smooth muscle relaxation and increased blood flow into the corpus cavernosum.
- Tadalafil inhibits also inhibits the enzyme phosphodiesterase type 5 PDE5 and thereby enhances erectile function by increasing the amount of cGMP available.

**Uses:** Used for the treatment of erectile dysfunction.



**Mechanism of action of sildenafil**

## Tadalafil



**IUPAC:** 6-(1,3-Benzodioxol-5-yl)-2-methyl-2,3,6,7,12,12a-hexahydropyrazino[1',2':1,6]pyrido[3,4-b]indol-1,4-dione

**MOA:**

- This response is mediated by the release of nitric oxide (NO) from nerve terminals and endothelial cells, which stimulates the synthesis of cGMP in smooth muscle cells.
- Cyclic GMP causes smooth muscle relaxation and increased blood flow into the corpus cavernosum.
- Tadalafil also inhibits the enzyme phosphodiesterase type 5 PDE5 and thereby enhances erectile function by increasing the amount of cGMP available.

**Uses:** Used for the treatment of erectile dysfunction.