

PRODUCT INFORMATION

N-desmethyl Sildenafil (citrate)

Item No. 10010587

Formal Name: 5-[2-ethoxy-5-(1-piperazinylsulfonyl)phenyl]-1,6-dihydro-1-methyl-3-propyl-7H-pyrazolo[4,3-d]pyrimidin-7-one, 2-hydroxypropane-1,2,3-tricarboxylic acid

MF: $C_{21}H_{28}N_6O_4S \cdot C_6H_8O_7$

FW: 652.7

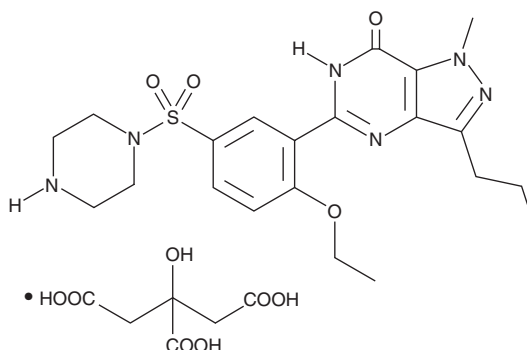
Purity: $\geq 98\%$

UV/Vis.: λ_{max} : 212, 295 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

N-desmethyl Sildenafil (citrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the N-desmethyl sildenafil (citrate) in the solvent of choice. N-desmethyl Sildenafil (citrate) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of N-desmethyl sildenafil (citrate) in these solvents is approximately 10 and 14 mg/ml, respectively.

Description

N-desmethyl Sildenafil is a major metabolite of sildenafil (Item Nos. 10008671 | 14008).¹⁻³ N-desmethyl Sildenafil is formed *via* oxidative metabolism of sildenafil by the cytochrome (CYP) P450 isoforms CYP3A4, CYP3A5, and CYP3A7.³

References

1. Walker, D.K., Ackland, M.J., James, G.C., *et al.* Pharmacokinetics and metabolism of sildenafil in mouse, rat, rabbit, dog and man. *Xenobiotica* **29**(3), 297-310 (2015).
2. Muirhead, G.J., Wilner, K., Colburn, W., *et al.* The effects of age and renal and hepatic impairment on the pharmacokinetics of sildenafil citrate. *Br. J. Clin. Pharmacol.* **53**(Suppl 1), 21S-30S (2015).
3. Takahiro, R., Nakamura, S., Kohno, H., *et al.* Contribution of CYP3A isoforms to dealkylation of PDE5 inhibitors: A comparison between sildenafil N-demethylation and tadalafil demethylation. *Biol. Pharm. Bull.* **38**(1), 58-65 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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