

Product Data Sheet

Product Name: Minoxidil
Cat. No.: GC14977

Chemical Properties

Cas. No. 38304-91-5

Chemical Name 3-hydroxy-2-imino-6-piperidin-1-ylpyrimidin-4-amine

SMILES C1CCN(CC1)C2=NC(=N)N(C(=C2)N)O

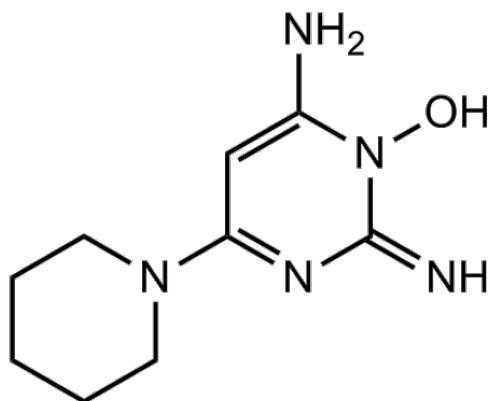
Formula $C_9H_{15}N_5O$ M.Wt 209.25

Solubility Ethanol: 1 mg/ml, PBS (pH 7.2): 1 mg/ml Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Minoxidil (U10858) is an ATP-sensitive potassium (KATP) channel opener, a potent oral antihypertensive agent and a peripheral vasodilator that promotes vasodilation also affects hair growth. Minoxidil is also a potent inhibitor of soybean lipoxygenase with an IC₅₀ of 20 μM[1][2][3].

Caution: Product has not been fully validated for medical applications. For research use only.

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Minoxidil (1-00 μ M; 24 hours; RAMEC cells) treatment shows very low cytotoxicities in the whole area of concentrations examined (from 1 μ M to 100 μ M)[1].

Minoxidil (0.01 mmol/kg body weight; intraperitoneal injection; for 3.5 hours; fisher 344 rats) treatment inhibits carrageenan-induced rat paw oedema with an inhibitory potency (49%)[1].

References:

- [1]. Hadjipavlou-Litina D, et al. Synthesis and evaluation of the antioxidative potential of minoxidil-polyamine conjugates. *Biochimie*. 2013 Jul;95(7):1437-49. doi: 10.1016/j.biochi.2013.03.009. Epub 2013 Mar 28.
- [2]. Davies GC, et al. Novel and established potassium channel openers stimulate hair growth in vitro: implications for their modes of action in hair follicles. *J Invest Dermatol*. 2005 Apr;124(4):686-94.
- [3]. Cohen RL, et al. Direct effects of minoxidil on epidermal cells in culture. *J Invest Dermatol*. 1984 Jan;82(1):90-3.

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