

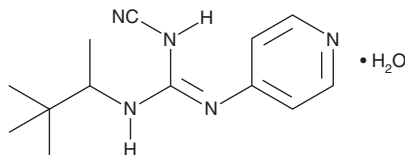
PRODUCT INFORMATION



Pinacidil (hydrate)

Item No. 15416

CAS Registry No.: 85371-64-8
Formal Name: N-cyano-N'-4-pyridinyl-N''-(1,2,2-trimethylpropyl)-guanidine, monohydrate
MF: C₁₃H₁₉N₅ • H₂O
FW: 263.4
Purity: ≥95%
UV/Vis.: λ_{max}: 258 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

Pinacidil (hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the pinacidil (hydrate) in the solvent of choice, which should be purged with an inert gas. Pinacidil (hydrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of pinacidil (hydrate) in these solvents is approximately 20, 10, and 15 mg/ml, respectively.

Pinacidil (hydrate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pinacidil (hydrate) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Pinacidil (hydrate) has a solubility of approximately 0.1 mg/ml in a 1:8 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pinacidil is a cyanoguanidine compound that acts as a potassium channel opener, activating the ATP-modulated potassium channels of guinea pig bladder and heart with K_i values of 104 and 251 nM, respectively.¹⁻³ It completely relaxes coronary artery rings precontracted with serotonin (Item No. 14332; IC₅₀ = 1.26 μM).⁴ Through this mechanism, pinacidil causes vascular relaxation, decreases peripheral vascular resistance, and reduces hypertension in animals and humans.^{5,6}

References

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3. Coghlan, M.J., Carroll, W.A., and Gopalakrishnan, M. *J. Med. Chem.* **44(11)**, 1627-1653 (2001).
4. Gollasch, M., Bychkov, R., Ried, C., et al. *J. Pharmacol. Exp. Ther.* **275(2)**, 681-692 (1995).
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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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