

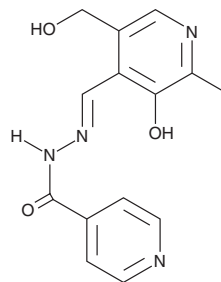
PRODUCT INFORMATION



Pyridoxal isonicotinoyl hydrazone

Item No. 19357

CAS Registry No.: 737-86-0
Formal Name: 4-pyridinecarboxylic acid, 2-[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]hydrazide
Synonyms: NSC 77674, PIH
MF: C₁₄H₁₄N₄O₃
FW: 286.3
Purity: ≥99%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



Special Conditions: Light sensitive; store in the dark under desiccating conditions

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

Laboratory Procedures

Pyridoxal isonicotinoyl hydrazone is supplied as a solid. A stock solution may be made by dissolving the pyridoxal isonicotinoyl hydrazone in the solvent of choice. Pyridoxal isonicotinoyl hydrazone is soluble in organic solvents such as DMSO, which should be purged with an inert gas. The solubility of pyridoxal isonicotinoyl hydrazone in this solvent is up to 100 mM.

Description

Pyridoxal isonicotinoyl hydrazine is a lipophilic, nontoxic, iron-chelating agent that shows high iron chelation efficacy both *in vitro* in cell culture models and *in vivo* in rats and mice.^{1,2} Because iron is a crucial component of metabolic pathways involved in DNA synthesis, cancerous cells have a high iron requirement due to rapid rates of proliferation. While pyridoxal isonicotinoyl hydrazine exhibits low anticancer activity, its analogs demonstrate antiproliferative effects in a range of tumor cells.³⁻⁵

References

1. Ponka, P., Borova, J., Neuwirt, J., *et al.* *FEBS Lett.* **97(2)**, 317-321 (1979).
2. Richardson, D.R. and Ponka, P. *J. Lab. Clin. Med.* **131(4)**, 306-315 (1998).
3. Merlot, A.M., Pantarat, N., Lovejoy, D.B., *et al.* *Mol. Pharmacol.* **78(4)**, 675-684 (2010).
4. Richardson, D.R. *Antimicrob. Agents Chemother.* **41(9)**, 2061-2063 (1997).
5. Gao, J. and Richardson, D.R. *Blood* **98(3)**, 842-850 (2001).

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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