

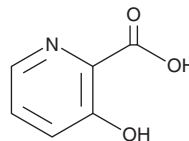
# PRODUCT INFORMATION



## 3-Hydroxypicolinic Acid

Item No. 34530

**CAS Registry No.:** 874-24-8  
**Formal Name:** 3-hydroxy-2-pyridinecarboxylic acid  
**Synonyms:** 3-HPA, HPicOH  
**MF:** C<sub>6</sub>H<sub>5</sub>NO<sub>3</sub>  
**FW:** 139.1  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 304 nm  
**Supplied as:** A 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

3-Hydroxypicolinic acid is supplied as a solid. A stock solution may be made by dissolving the 3-hydroxypicolinic acid in the solvent of choice, which should be purged with an inert gas. 3-Hydroxypicolinic acid is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 3-hydroxypicolinic acid in these solvents is approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 3-hydroxypicolinic acid can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 3-hydroxypicolinic acid in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

3-Hydroxypicolinic acid is a matrix substance in matrix-assisted laser desorption ionization mass spectrometry (MALDI-MS) applications that has been used in the analysis of oligonucleotides and proteins.<sup>1,2</sup> It has also been used as a complexation agent for metal complexes.<sup>3</sup> 3-Hydroxypicolinic acid is an intermediate in the biosynthesis of the antibiotic virginiamycin S<sub>1</sub>.<sup>4</sup>

### References

1. Nordhoff, E., Kirpekar, F., Karas, M., *et al.* Comparison of IR- and UV-matrix-assisted laser desorption/ionization mass spectrometry of oligodeoxynucleotides. *Nucleic Acids Res.* **22(13)**, 2460-2465 (1994).
2. Karas, M., Bahr, U., Strupat, K., *et al.* Matrix dependence of metastable fragmentation of glycoproteins in MALDI TOF mass spectrometry. *Anal. Chem.* **67(3)**, 675-679 (1995).
3. Kiss, E., Petrohán, K., Sanna, D., *et al.* Solution speciation and spectral studies on oxovanadium(IV) complexes of pyridinecarboxylic acids. *Polyhedron* **19(1)**, 55-61 (2000).
4. Reed, J.W., Purvis, M.B., Kingston, D.G.I., *et al.* Biosynthesis of antibiotics of the virginiamycin family. 7. Stereo- and regiochemical studies on the formation of the 3-hydroxypicolinic acid and pipercolic acid units. *J. Org. Chem.* **54(5)**, 1161-1165 (1989).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/22/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM