

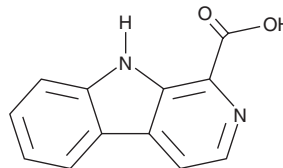
PRODUCT INFORMATION



β -Carboline-1-carboxylic Acid

Item No. 31415

CAS Registry No.: 26052-96-0
Formal Name: 9H-pyrido[3,4-b]indole-1-carboxylic acid
Synonym: 1-Formic Acid- β -carboline
MF: C₁₂H₈N₂O₂
FW: 212.2
Purity: \geq 95%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years
Item Origin: Plant/*Quassia amara*



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

Laboratory Procedures

β -Carboline-1-carboxylic acid is supplied as a solid. A stock solution may be made by dissolving the β -carboline-1-carboxylic acid in the solvent of choice, which should be purged with an inert gas. β -Carboline-1-carboxylic acid is soluble in methanol and DMSO.

Description

β -Carboline-1-carboxylic acid is an alkaloid that has been found in *P. quassioides* and has diverse biological activities.¹⁻³ It reduces LPS-induced increases in MCP-1, TNF- α , IL-6, and IL-1 β levels in RAW 264.7 cells when used at a concentration of 15 μ g/ml and inhibits the epithelial-to-mesenchymal transition (EMT) induced by TGF- β 1 in A549 cells.² β -Carboline-1-carboxylic acid induces cytotoxicity in CT26.WT, K562, and SGC-7901 cells (IC₅₀s = 14.96, 22.11, and 19.7 μ g/ml, respectively) but not HepG2 or A549 cells (IC₅₀s = 36.41 and 41.51 μ g/ml, respectively).¹ It also inhibits cAMP phosphodiesterase with an IC₅₀ value of 96 μ M.³

References

1. Lai, Z.-Q., Liu, W.-H., Ip, S.-P., *et al.* Seven alkaloids from *Picrasma quassioides* and their cytotoxic activities. *Chem. Nat. Compd.* **50(5)**, 884–888 (2014).
2. Cui, Y., Jiang, L., Yu, R., *et al.* β -carboline alkaloids attenuate bleomycin induced pulmonary fibrosis in mice through inhibiting NF- κ b/p65 phosphorylation and epithelial-mesenchymal transition. *J. Ethnopharmacol.* **243**, 112096 (2019).
3. Sung, Y.-I., Koike, K., Nikaido, T., *et al.* Inhibitors of cyclic AMP phosphodiesterase in *Picrasma quassioides* BENNET, and inhibitory activities of related β -carboline alkaloids. *Chem. Pharm. Bull. (Tokyo)* **32(5)**, 1872-1877 (1984).

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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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