

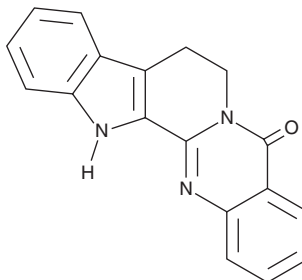
PRODUCT INFORMATION



Rutaecarpine

Item No. 22897

CAS Registry No.: 84-26-4
Formal Name: 8,13-dihydro-indolo[2',3':3,4]pyrido[2,1-b]quinazolin-5(7H)-one
Synonym: NSC 258317
MF: C₁₈H₁₃N₃O
FW: 287.3
Purity: ≥98%
UV/Vis.: λ_{max}: 213, 345, 362 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

Rutaecarpine is supplied as a crystalline solid. A stock solution may be made by dissolving the rutaecarpine in the solvent of choice, which should be purged with an inert gas. Rutaecarpine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of rutaecarpine in these solvents is approximately 12 and 33 mg/ml, respectively.

Description

Rutaecarpine is a quinazolinone alkaloid originally isolated from *E. rutaecarpa* that has diverse biological activities.¹ It inhibits COX-1 and COX-2 in BMMC cells (IC₅₀s = 8.7 and 0.28 μM, respectively) and is selective for COX-2 in HEK293 cells (IC₅₀s = >400 and 2.8 μM, for COX-1 and COX-2, respectively).² It slows the growth of cancer cells *in vitro* with GI₅₀ values of 8.41-31.6 μM.¹ It also has cardiovascular properties, inducing dose-dependent vasodilation (0.1-10 μM) of precontracted isolated rat aorta and inhibiting platelet aggregation.³ In addition, rutaecarpine (80 mg/kg) decreases plasma levels of caffeine in rat by inducing its metabolism through the cytochrome P450 (CYP) isoforms CYP1A2 and CYP2E1.⁴

References

1. Son, J.K., Chang, H.W., and Jahng, Y. Progress in studies on rutaecarpine. II.—Synthesis and structure-biological activity relationships. *Molecules* **20(6)**, 10800-10821 (2015).
2. Moon, T.C., Murakami, M., Kudo, I., *et al.* A new class of COX-2 inhibitor, rutaecarpine from *Evodia rutaecarpa*. *Inflamm. Res.* **48(12)**, 462-465 (1999).
3. Jia, S. and Hu, C. Pharmacological effects of rutaecarpine as a cardiovascular protective agent. *Molecules* **15(3)**, 1873-1881 (2010).
4. Noh, K., Seo, Y.M., Lee, S.K., *et al.* Effects of rutaecarpine on the metabolism and urinary excretion of caffeine in rats. *Arch. Pharm. Res* **34(1)**, 119-125 (2011).

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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