

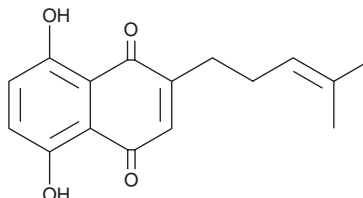
PRODUCT INFORMATION



Deoxyshikonin

Item No. 44092

CAS Registry No.: 43043-74-9
Formal Name: 5,8-dihydroxy-2-(4-methyl-3-penten-1-yl)-1,4-naphthalenedione
Synonym: NSC 179184
MF: $C_{16}H_{16}O_4$
FW: 272.3
Purity: $\geq 98\%$
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Plant/*Lithospermum erythrorhizon* (Siebold & Zucc.)



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

Laboratory Procedures

Deoxyshikonin is supplied as a solid. A stock solution may be made by dissolving the deoxyshikonin in the solvent of choice, which should be purged with an inert gas. Deoxyshikonin is slightly soluble (0.1-1 mg/ml) in ethanol and DMSO.

Description

Deoxyshikonin is a naphthoquinone that has been found in *L. erythrorhizon* and has diverse biological activities.¹⁻⁴ It is active against *H. pylori* strains *in vitro* (MIC = 0.5-1 $\mu\text{g/ml}$) and reduces *H. pylori* colonization of gastric mucosa in mice when administered at a dose of 7 mg/kg.¹ Deoxyshikonin (10-40 μM) inhibits rotavirus replication and inhibits rotavirus-induced autophagy in Caco-2 cells.² *In vivo*, deoxyshikonin (5 and 10 mg/kg) increases body weight and survival and reduces diarrhea score in rotavirus-infected mice. Topical application of deoxyshikonin (3 and 20 μM) increases wound closure percentage in a model of diabetic wound healing using rats with streptozotocin-induced diabetes.³ Topical application of deoxyshikonin (0.5 mM) increases hair growth in depilated mice.⁴

References

1. Xu, J.-y., Dong, H.-h.L., L.-j., Yang, S.-x., *et al.* Deoxyshikonin: A promising lead drug grass against drug resistance or sensitivity to *Helicobacter pylori* in an acidic environment. *Antimicrob. Agents Chemother.* **68(10)**, e0095924 (2024).
2. Huang, H., Liao, D., He, B., *et al.* Deoxyshikonin inhibited rotavirus replication by regulating autophagy and oxidative stress through SIRT1/FoxO1/Rab7 axis. *Microb. Pathog.* **178**, 106065 (2023).
3. Park, J.Y., Shin, M.S., Hwang, G.S., *et al.* Beneficial effects of deoxyshikonin on delayed wound healing in diabetic mice. *Int. J. Mol. Sci.* **19(11)**, 3660 (2018).
4. Li, Y., Mu, Y., Chen, X., *et al.* Deoxyshikonin from *Arnebiae Radix* promotes hair growth by targeting the Wnt/ β -catenin signaling pathway. *Phytomedicine* **140**, 156590 (2025).

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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