

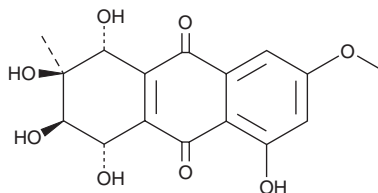
PRODUCT INFORMATION



Altersolanol A

Item No. 44642

CAS Registry No.: 22268-16-2
Formal Name: 1R,2S,3R,4S-tetrahydro-1,2,3,4,5-pentahydroxy-7-methoxy-2-methyl-9,10-anthracenedione
Synonym: NSC 173943
MF: C₁₆H₁₆O₈
FW: 336.3
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Fungus/*Sarocladium* sp.



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

Laboratory Procedures

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

Altersolanol A is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Altersolanol A is a pentahydroanthraquinone originally isolated from *A. solani* that has diverse biological activities.¹⁻⁴ It is an activator of mitochondrial NADH oxidase and increases the activity of mitochondrial NADH oxidase isolated from primary tobacco cells (*N. rustica*).² Altersolanol A is cytotoxic to L5178Y lymphoma cells (IC₅₀ = 2.53 μM).³ It induces cell cycle arrest in the sub-G₁ phase, decreases TNF-α-induced NF-κB transcriptional activity, and reduces cell migration and invasion in K562 chronic myeloid leukemia (CML) cells when used at a concentration of 25 μM.⁴

References

1. Stoessl, S. Some metabolites of *Alternaria solani*. *Can. J. Chem.* **47**(5), 767-776 (1969).
2. Haraguchi, H., Abo, T., Fukuda, A., *et al.* Mode of phytotoxic action of altersolanols. *Phytochem.* **43**(5), 989-992 (1996).
3. Liu, Y., Marmann, A., Abdel-Aziz, M.S., *et al.* Tetrahydroanthraquinone derivatives from the endophytic fungus *Stemphylium globuliferum*. *Eur. J. Org. Chem.* **2015**(12), 2646-2653 (2015).
4. Teiten, M.-H., Mack, F., Debbab, A., *et al.* Anticancer effect of altersolanol A, a metabolite produced by the endophytic fungus *Stemphylium globuliferum*, mediated by its pro-apoptotic and anti-invasive potential via the inhibition of NF-κB activity. *Bioorg. Med. Chem.* **21**(13), 3850-3858 (2013).

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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