

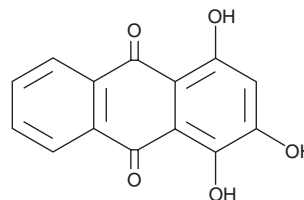
PRODUCT INFORMATION



Purpurin

Item No. 11752

CAS Registry No.: 81-54-9
Formal Name: 1,2,4-trihydroxy-9,10-anthracenedione
Synonyms: Hydroxylizaric Acid, NSC 10447, Verantin
MF: C₁₄H₈O₅
FW: 256.2
Purity: ≥95%
UV/Vis.: λ_{max}: 255, 484 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

Purpurin is supplied as a crystalline solid. A stock solution may be made by dissolving the purpurin in the solvent of choice, which should be purged with an inert gas. Purpurin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of purpurin in these solvents is approximately 0.5 mg/ml.

Description

Purpurin is a naturally occurring reddish-yellow pigment found in madder root (*R. tinctorum*) that has been used both in herbal remedies and as food coloring. It can also be synthetically derived from 9,10-anthraquinone. Purpurin is protective against a number of food-derived heterocyclic amines in bacterial mutagenicity assays through its inhibition of CYP450-dependent N-hydroxylation and reduction of N-hydroxylamines.¹ Purpurin can also inhibit (IC₅₀ = 6.6 μM) spermidine-induced autoactivation of plasma hyaluronan-binding protein, a serine protease that can activate coagulation factor VII and prourokinase.²

References

1. Marczylo, T., Arimoto-Kobayashi, S., and Hayatsu, H. Protection against Trp-P-2 mutagenicity by purpurin: Mechanism of *in vitro* antimutagenesis. *Mutagenesis* **15(3)**, 223-228 (2000).
2. Nishimura, N., Takai, M., Yamamoto, E., *et al.* Purpurin as a specific inhibitor of spermidine-induced autoactivation of the protease plasma hyaluronan-binding protein. *Biol. Pharm. Bull.* **33(8)**, 1430-1433 (2010).

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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