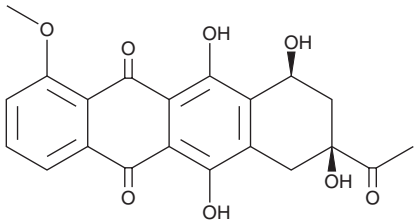
PRODUCT INFORMATION

Daunorubicinone

Item No. 32912

CAS Registry No.:	21794-55-8
Formal Name:	(8S,10S)-8-acetyl-7,8,9,10-tetrahydro-6,8,10,11-tetrahydroxy-1-methoxy-5,12-naphthacenedione
Synonyms:	(+)-Daunomycinone, NSC 109531
MF:	$C_{21}H_{18}O_8$
FW:	398.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 233, 250 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

Daunorubicinone is supplied as a crystalline solid. A stock solution may be made by dissolving the daunorubicinone in the solvent of choice, which should be purged with an inert gas. Daunorubicinone is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of daunorubicinone in DMSO and DMF is approximately 30 mg/ml. Daunorubicinone is slightly soluble in ethanol.

Daunorubicinone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, daunorubicinone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Daunorubicinone has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Daunorubicinone is an aglcyone form of the antitumor antibiotic daunorubicin (Item No. 14159).[1] It has been used as a starting material in the synthesis of anticancer agents.[2,3]

References

1. Arcamone, F., Franceschi, G., Orezzi, P., et al. Daunomycin. I. The structure of daunomycinone. *J. Am. Chem. Soc.* **86(23)**, 5334-5335 (1964).
2. Aligiannis, N., Pouli, N., Marakos, P., *et al.* Synthesis and cytotoxic activity of a new potent daunomycinone derivative. *Bioorg. Med. Chem.* **12(24)**, 3505-3507 (2002).
3. Baer, H.H. and Siemsen, L. Synthesis and biological activity of (S)-2'-fluorodaunorubicin. *Can. J. Chem.* **66(1)**, 187-190 (1988).

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