

PRODUCT INFORMATION



Fostriecin (sodium salt)

Item No. 14749

CAS Registry No.: 87860-39-7
Formal Name: (6R)-5,6-dihydro-6-
[(1E,3R,4R,6R,7Z,9Z,11E)-3,6,13-trihydroxy-
3-methyl-4-(phosphonoxy)-1,7,9,11-
tridecatetraen-1-yl]-2H-pyran-2-one,
monosodium salt

Synonyms: Antibiotic CI-920, Phosphotrienin

MF: C₁₉H₂₆O₉P • Na

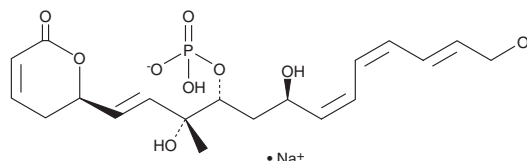
FW: 452.4

Purity: ≥95%

Supplied as: A powder

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

Fostriecin (sodium salt) is supplied as a powder. A stock solution may be made by dissolving the fostriecin (sodium salt) in water. We do not recommend storing the aqueous solution for more than one day.

Description

Fostriecin is an inhibitor of the serine/threonine protein phosphatases 2A (PP2A) and 4 (PP4) (IC₅₀s = 3.2 and 3 nM, respectively).¹⁻² It less effectively inhibits topoisomerase II and PP1 (IC₅₀s = 40 and 131 μM, respectively) and does not inhibit PP2B.^{1,3} Through its effects on protein phosphatases, fostriecin increases the level of histone H3 phosphorylation and may alter epigenetic regulation of cell proliferation.⁴ On a related note, fostriecin was first identified as an antitumor antibiotic.⁵

References

1. Walsh, A.H., Cheng, A., and Honkanen, R.E. Fostriecin, an antitumor antibiotic with inhibitory activity against serine/threonine protein phosphatases types 1 (PP1) and 2A (PP2A), is highly selective for PP2A. *FEBS Lett.* **416(3)**, 230-234 (1997).
2. Hastie, C.J. and Cohen, P.T. Purification of protein phosphatase 4 catalytic subunit: Inhibition by the antitumour drug fostriecin and other tumour suppressors and promoters. *FEBS Lett.* **431(3)**, 357-361 (1998).
3. McCluskey, A., Sim, A.T.R., and Sakoff, J.A. Serine-threonine protein phosphatase inhibitors: Development of potential therapeutic strategies. *J. Med. Chem.* **45(6)**, 1151-1175 (2002).
4. Zheng, Y.G., Wu, J., Chen, Z., et al. Chemical regulation of epigenetic modifications: Opportunities for new cancer therapy. *Med. Res. Rev.* **28(5)**, 645-687 (2008).
5. Tunac, J.B., Graham, B.D., and Dobson, W.E. Novel antitumor agents CI-920, PD 113,270 and PD 113,271. I. Taxonomy, fermentation and biological properties. *J. Antibiot. (Tokyo)* **36(12)**, 1595-1600 (1983).

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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