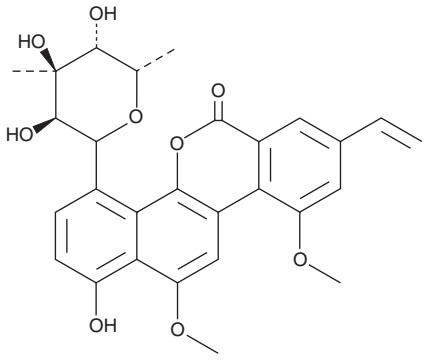
PRODUCT INFORMATION

Chrysomycin A

Item No. 14188

CAS Registry No.:	82196-88-1
Formal Name:	4-(6-deoxy-3-C-methyl-β-gulopyranosyl)-8-ethenyl-1-hydroxy-10,12-dimethoxy-6H-benzo[d]naphtho[1,2-b]pyran-6-one
Synonyms:	Albacarcin V, NSC 613946, Virenomycin V
MF:	$C_{28}H_{28}O_9$
FW:	508.5
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Bacterium/*Streptomyces* sp.



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

Laboratory Procedures

Chrysomycin A is supplied as a solid. A stock solution may be made by dissolving the chrysomycin A in the solvent of choice, which should be purged with an inert gas. Chrysomycin A is soluble in organic solvents such as DMSO and dimethyl formamide. Chrysomycin A is also slightly soluble in ethanol and methanol.

Description

Chrysomycin A is an antibiotic isolated from a strain of *Streptomyces*.[1] It is structurally very similar to gilvocarcin V, an inhibitor of topoisomerase II which promotes DNA cross-linking with histone 3 and GRP78 when photoactivated by near-UV light.[2-4] Chrysomycin A inhibits DNA synthesis in bacteria and suppresses the growth of transplantable tumors in mice.[5,6]

References

1. Strelitz, F., Flon, H., and Asheshov, I.N. Chrysomycin: A new antibiotic substance for bacterial viruses. *J. Bacteriol.* **69(3)**, 280-283 (1955).
2. Weiss, U., Yoshihira, K., Highet, R.J., *et al.* The chemistry of the antibiotics chrysomycin A and B. Antitumor activity of chrysomycin A. *J. Antibiot.* **35(9)**, 1194-1201 (1982).
3. Lorico, A. and Long, B.H. Biochemical characterisation of elsamicin and other coumarin-related antitumour agents as potent inhibitors of human topoisomerase II. *Eur. J. Cancer* **29A**, 1985-1991 (1993).
4. Matsumoto, A. and Hanawalt, P.C. Histone H3 and heat shock protein GRP78 are selectively cross-linked to DNA by photoactivated gilvocarcin V in human fibroblasts. *Cancer Res.* **60(14)**, 3921-3926 (2000).
5. Wei, T.T., Byrne, K.M., Warnick-Pickle, D., *et al.* Studies on the mechanism of action of gilvocarcin V and chrysomycin A. *J. Antibiot.* **35(4)**, 545-548 (1982).
6. Matson, J.A., Rose, W.C., Bush, J.A., *et al.* Antitumor activity of chrysomycins M and V. *J. Antibiot.* **42(9)**, 1446-1448 (1989).

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