

# 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<sub>28</sub>H<sub>28</sub>O<sub>9</sub>

**FW:** 508.5

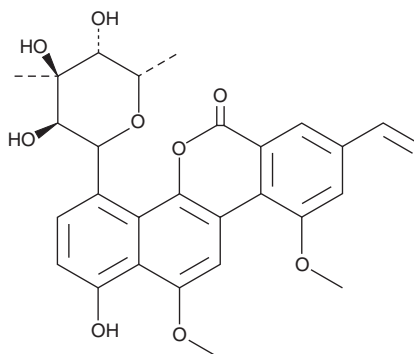
**Purity:** ≥98%

**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*.<sup>1</sup> 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.<sup>2-4</sup> Chrysomycin A inhibits DNA synthesis in bacteria and suppresses the growth of transplantable tumors in mice.<sup>5,6</sup>

### 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., Hight, 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).

#### 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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