

PRODUCT INFORMATION



Gilvocarcin V

Item No. 14190

CAS Registry No.: 77879-90-4

Formal Name: 4-(6-deoxy-a-D-galactofuranosyl)-8-ethenyl-1-hydroxy-10,12-dimethoxy-6H-benzo[d]naphtho[1,2-b]pyran-6-one

Synonyms: Anandimycin A, Antibiotic 1072B, DC-38-V, NSC 338943, NSC 348115, Toromycin A

MF: $C_{27}H_{26}O_9$

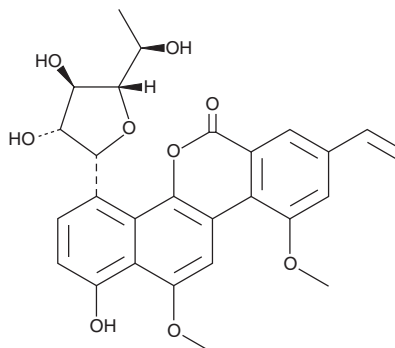
FW: 494.5

Purity: $\geq 98\%$

Supplied as: A film

Storage: -20°C

Stability: ≥ 4 years



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

Laboratory Procedures

Gilvocarcin V is supplied as a film. A stock solution may be made by dissolving the gilvocarcin V in the solvent of choice, which should be purged with an inert gas. Gilvocarcin V is soluble in the organic solvent DMSO.

Gilvocarcin V is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Gilvocarcin V is an antitumor antibiotic with a coumarin-based aromatic structure that was originally isolated from the culture broth of *S. gilvotanareus*.^{1,2} It is strongly active against Gram-positive bacteria such as *S. aureus* and *B. subtilis* and efficacious against experimental tumors including sarcoma 180, Ehrlich carcinoma, Meth I fibrosarcoma, MH134 hepatoma, and lymphocytic leukemia P388.³ Gilvocarcin V inhibits DNA synthesis by promoting the selective cross-linking of both histone H3 and the heat shock protein, GRP78 to DNA when photoactivated by near-UV or visible light.

References

1. 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).
2. Nakano, H., Matsuda, Y., Ito, K., *et al.* Gilvocarcins, new antitumor antibiotics. 1. Taxonomy, fermentation, isolation and biological activities. *J. Antibiot.* **34**(3), 266-270 (1981).
3. Morimoto, M., Okubo, S., Tomita, F., *et al.* Gilvocarcins, new antitumor antibiotics. 3. Antitumor activity. *J. Antibiot.* **34**(6), 701-707 (1981).
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).

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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