

Product Information



Fumagillin

Item No. 11332

CAS Registry No.: 23110-15-8
Formal Name: 1-[(3R,4S,5S,6R)-5-methoxy-4-[(2R,3R)-2-methyl-3-(3-methyl-2-buten-1-yl)-2-oxiranyl]-1-oxaspiro[2.5]oct-6-yl] ester-2E,4E,6E,8E-decetraenedioic acid

Synonyms: Amebacilin, NSC 9168

MF: C₂₆H₃₄O₇

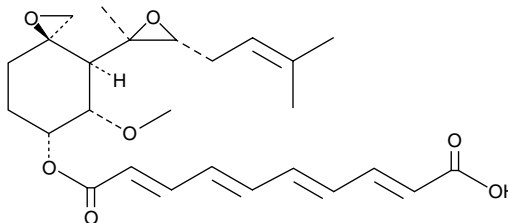
FW: 458.6

Purity: ≥95%

Stability: ≥2 years at -20°C

Supplied as: A crystalline solid

UV/Vis.: λ_{max}: 334, 348 nm



Laboratory Procedures

For long term storage, we suggest that fumagillin be stored as supplied at -20°C. It should be stable for at least two years.

Fumagillin is supplied as a crystalline solid. A stock solution may be made by dissolving the fumagillin in the solvent of choice. Fumagillin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of fumagillin in ethanol is approximately 0.25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Fumagillin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, fumagillin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Fumagillin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Fumagillin is an antibiotic derived from the fungus *A. fumigatus*. It binds and inhibits methionine aminopeptidase-2 with an IC₅₀ value of 10 nM.^{1,2} Fumagillin inhibits angiogenesis by impairing the growth of endothelial cells and altering gene expression.^{1,3,4} It also impairs microsporidial replication and can be used to treat both conjunctival and intestinal microsporidial infections in immunocompromised patients.^{5,6} Finally, fumagillin reduces diet-induced adipose tissue formation in mice, independent of its effects on angiogenesis.⁷

References

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3. Mazzanti, C.M., Tandle, A., Lorang, D., *et al. Genome Res.* **14**, 1585-1593 (2004).
4. Sheen, I.-S., Jeng, K.-S., Jeng, W.-J., *et al. World J. Gastroenterol.* **11**(6), 771-777 (2005).
5. Didier, E.S., Rogers, L.B., Brush, A.D., *et al. J. Clin. Microbiol.* **34**(4), 947-952 (1996).
6. Molina, J.-M., Tourneur, M., Sarfati, C., *et al. N. Engl. J. Med.* **346**(25), 1963-1969 (2002).
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Related Products

For a list of related products please visit: www.caymanchem.com/catalog/11332

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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