



Product Information

Product ID C2969

CAS No. 7059-24-7

Chemical Name

Synonym

Formula $C_{57}H_{82}O_{26}$

Formula Wt. 1183.2488

Melting Point 182-186 °C

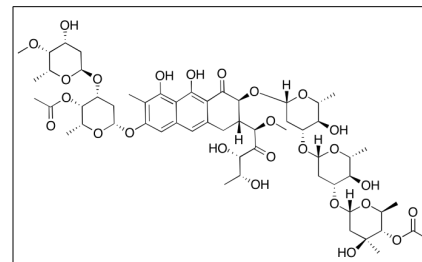
Purity $\geq 97\%$

Solubility

Store Temp 4 °C

Ship Temp Ambient

Description Chromomycin A3 is an anthraquinone that exhibits antibacterial and anticancer chemotherapeutic activity. Chromomycin A3 binds Mg^{2+} and Zn^{2+} ions, and these complexes bind GC sequences in nucleosomal DNA; this inhibits DNA gyrase, RNA polymerase, and DNA transcription. Chromomycin inhibits growth of bacteria such as *Bacillus*, inhibits alcohol dehydrogenase, and suppresses tumor growth of breast cancer xenografts in animal models.



Bulk quantities available upon request

Product ID	Size
C2969	1 mg
C2969	5 mg
C2969	10 mg

References Devi PG, Chakraborty PK, Dasgupta D. Inhibition of a Zn(II)-containing enzyme, alcohol dehydrogenase, by anticancer antibiotics, mithramycin and chromomycin A3. *J Biol Inorg Chem*. 2009 Mar;14(3):347-59. PMID: 19034537.

Mir MA, Dasgupta D. Association of the anticancer antibiotic chromomycin A(3) with the nucleosome: role of core histone tail domains in the binding process. *Biochemistry*. 2001 Sep 25;40(38):11578-85. PMID: 11560508.

Simon H, Wittig B, Zimmer C. Effect of netropsin, distamycin A and chromomycin A3 on the binding and cleavage reaction of DNA gyrase. *FEBS Lett*. 1994 Oct 10;353(1):79-83. PMID: 7926028.

Inoue K, Fujimoto S, Ogawa M. Antitumor efficacy of seventeen anticancer drugs in human breast cancer xenograft (MX-1) transplanted in nude mice. *Cancer Chemother Pharmacol*. 1983;10(3):182-6. PMID: 6305523.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.