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| Product Name: | Chromomycin A3 |
| Product Number: | C152 |
| CAS Number: | 7059-24-7 |
| Molecular Formula: | $C_{57}H_{82}O_{26}$ |
| Molecular Weight: | 1183.3 |
| Appearance: | Yellow powder |
| Storage Conditions: | -20°C |
| Description: | <p>Chromomycin A3 is the major component of the chromomycin complex of the aureolic acid class, isolated from several <i>Streptomyces</i> species, and first reported in 1960. Chromomycin A3 exhibits a broad biological profile as an antibacterial, antifungal and antitumor agent. The intense UV spectrum and strong fluorescence makes chromomycin a useful stain for DNA.</p> <p>Chromomycin A3 is soluble in ethanol, methanol, DMF and DMSO.</p> |
| Mechanism of Action: | <p>Chromomycin A3 binds reversibly to GC-specific DNA ligand in the minor groove which inhibits transcription, DNA gyrase and topoisomerase II activity.</p> |
| References: | <p>Studies on streptomycetes. On a new antibiotic, chromomycin. Shibata M. et al. J. Antibiotics Ser. B, 1960, 13, 1.</p> <p>Aureolic acid group of anti-tumor antibiotics. Berlin Y. A. Nature 1968, 218, 193.</p> <p>Transcriptional regulation of differentiation, selective toxicity and ATGCAAAT binding of bisbenzimidazole derivatives in human melanoma cells. Wong S. et al. Biochem. Pharmacol. 1994, 47, 827.</p> <p>Specific staining of DNA with the fluorescent antibiotics, mithramycin, chromomycin, and olivomycin. Crissman H. A. & Tobey R. . Methods. Cell Biol. 1990, 33, 97.</p> |