

Catalog # 10-2064 Chromomycin A3

CAS# 7059-24-7 Aburamycin B; CMA3; NSC-58514 Lot # X101521



A DNA-binding agent specific for GC-rich sequences¹ which may be used as a DNA stain². Inhibits neuronal apoptosis induced by oxidative stress and DNA damage.³ Inhibits NFκB signaling.⁴ Used in a reliable method for evaluating sperm DNA integrity.⁵

- 1) Van Dyke et al. (1983), Chromomycin, Mithramycin and olivomycin binding sites on heterogeneous deoxyribonucleic acid. Footprinting with methidiumpropyl-EDTA)iron(II); Biochemistry, **22** 2373
- 2) Crissman and Tobey (1990), Specific staining of DNA with the fluorescent antibiotic, mithramycin, chromomycin, and olivomycin; Methods Cell Biol., **33** 97
- 3) Chatterjee et al. (2001), Sequence-selective DNA binding drugs mithramycin A and chromomycin A3 are potent inhibitors of neuronal apoptosis induced by oxidative stress and DNA damage in cortical neurons; Ann. Neurol., **49** 345
- *4)* Miller *et al.* (2010), *Identification of known drugs that act as inhibitors of NF-kappaB signaling and their mechanism of action;* Biochem. Pharmacol., **79** 1272
- 5) Dutta *et al.* (2020), *Comparative analysis of tests used to assess sperm chromatin integrity and DNA fragmentation*; Andrologia, **July 6** e13718 (Online ahead of print)

PHYSICAL DATA

| Molecular Weight: | 1183.25 |
|------------------------|--|
| Molecular Formula: | C ₅₇ H ₈₂ O ₂₆ |
| Purity: | 98% by HPLC |
| | NMR: (Conforms) |
| Solubility: | DMSO (up to 20 mg/ml) |
| Physical Description: | Yellow solid |
| Storage and Stability: | Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. |
| | Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month. |

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