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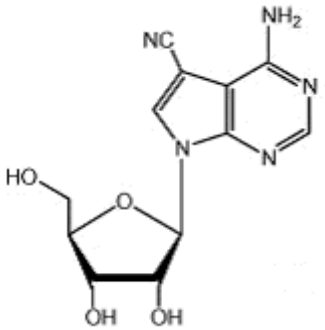
Product Information

Toyocamycin
from *Streptomyces rimosus*

Catalog Number **T3580**
Storage Temperature 2–8 °C

CAS RN 606-58-6
Synonyms: Unamycin B, NSC 63701, NSC 99843, Vengicide, 7-Deaza-7-cyanoadenosine, Neuro 000027



Product Description

Molecular formula: $C_{12}H_{13}N_5O_4$
Formula weight: 291.26

Purity: ≥98% (HPLC)

Toyocamycin is a nucleoside-type antibiotic analog of adenosine, isolated from *Streptomyces species*.[1] Toyocamycin is an antitumor antibiotic with various target activities. Toyocamycin is a potent inhibitor of RNA self-cleavage in mammalian cells.[2] It also inhibits phosphatidylinositol kinase, a cell proliferation regulator.[3] Toyocamycin was also found to inhibit auxin signaling. Auxins are plant hormones with a crucial role in plant development regulation and Toyocamycin was found to specifically inhibit auxin-responsive gene expression.[4]

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation instructions

Soluble in dimethyl sulfoxide (DMSO) and acidic solutions. Moderately soluble in water, methanol, and ethanol. Once dissolved in DMSO the solution can be further diluted 10-fold in water.

Storage/Stability

Store the product sealed at 2–8 °C. Under these conditions the product is stable for at least 4 years.

References

1. Nishimura, H. et al., Toyocamycin, a new anti-candida antibiotic. J. Antibiot. (Tokyo), **9**, 60-62 (1956).
2. Yen, L. et al., Identification of inhibitors of ribozyme self-cleavage in mammalian cells via high-throughput screening of chemical libraries. RNA, **12**, 797-806 (2006).
3. Nishioka, H. et al., Inhibition of Phosphatidylinositol Kinase by Toyocamycin. J. Antibiot. (Tokyo), **43**, 1586-1589 (1990).
4. Hayashi, K. et al., Toyocamycin specifically inhibits auxin signaling mediated by SCFTIR1 pathway. Phytochem., **70**, 190-197 (2009).

EM,MB,KAA,MAM 11/12-1