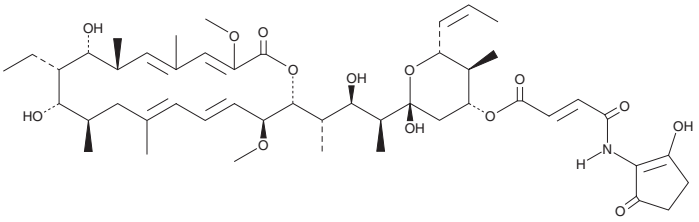
PRODUCT INFORMATION

Virustomycin A

Item No. 27736

CAS Registry No.: 84777-85-5
Formal Name: 4-[(2-hydroxy-5-oxo-1-cyclopenten-1-yl)amino]-4-oxo-2-butenoic acid, (2R,4R,5S,6R)-2-[(1S,2R,3S)-3-[(2R,3S,4E,6E,9R,10S,11S,12R,13R,14E,16Z)-11-ethyl-10,12-dihydroxy-3,17-dimethoxy-7,9,13,15-tetramethyl-18-oxooxacyclooctadeca-4,6,14,16-tetraen-2-yl]-2-hydroxy-1-methylbutyl] tetrahydro-2-hydroxy-5-methyl-6-(1E)-1-propen-1-yl-2H-pyran-4-yl ester
Synonym: AM 2604A
MF: $C_{48}H_{71}NO_{14}$
FW: 886.1
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Bacterium/*Streptomyces* sp.



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Virustomycin A is supplied as a solid. A stock solution may be made by dissolving the virustomycin A in the solvent of choice, which should be purged with an inert gas. Virustomycin A is soluble in ethanol, methanol, and chloroform.

Description

Virustomycin A is a macrolide antibiotic originally isolated from *Streptomyces*.[1,2] It is active against infectious and plant pathogenic fungi, including *T. vaginalis* and *P. oryzae* (MICs = 6.25 and 12.5 µg/ml, respectively), as well as the parasite *T. foetus* (MIC = 25 µg/ml).[1] It also decreases plaque formation by RNA and DNA viruses (ED_{50} = 0.0003 µg/ml for all). Virustomycin A is active against the GUTat 3.1 strain of *T. brucei brucei*, but not the STIB900 strain of *T. brucei rhodesiense* (IC_{50}s = 0.45 and 480 ng/ml, respectively), and induces cytotoxicity in human MRC-5 cells with an IC_{50} value of 80 ng/ml.[3] It inhibits RNA, DNA, and protein synthesis in *T. foetus*.[2]

References

1. Omura, S., Shimizu, H., Iwai, Y., *et al.* AM-2604 A, a new antiviral antibiotic produced by a strain of *Streptomyces*. *J. Antibiot. (Tokyo)* **35(12)**, 1632-1637 (1982).
2. Omura, S., Otogguro, K., and Tanaka, H. The mode of action of a novel 18-membered macrolide, virustomycin A (AM-2604 A), on *Trichomonas foetus*. *J. Antibiot. (Tokyo)* **36(12)**, 1755-1761 (1983).
3. Otoguro, K., Ishiyama, A., Namatame, M., *et al.* Selective and potent *in vitro* antitrypanosomal activities of ten microbial metabolites. *J. Antibiot. (Tokyo)* **61(6)**, 372-378 (2008).

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