

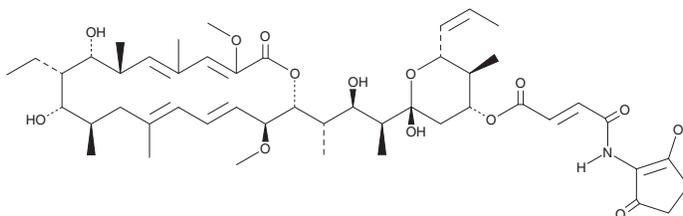
# PRODUCT INFORMATION



## 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<sub>48</sub>H<sub>71</sub>NO<sub>14</sub>  
**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*.<sup>1,2</sup> 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).<sup>1</sup> It also decreases plaque formation by RNA and DNA viruses (ED<sub>50</sub> = 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<sub>50</sub>s = 0.45 and 480 ng/ml, respectively), and induces cytotoxicity in human MRC-5 cells with an IC<sub>50</sub> value of 80 ng/ml.<sup>3</sup> It inhibits RNA, DNA, and protein synthesis in *T. foetus*.<sup>2</sup>

### 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., Otaguro, 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. Otaguro, 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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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