

PRODUCT INFORMATION

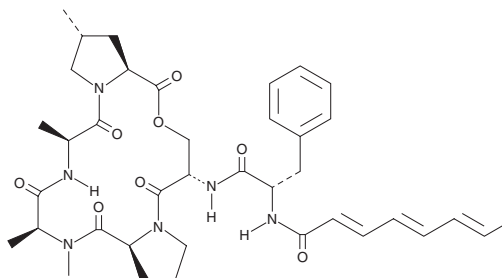


A-54556A

Item No. 15305

CAS Registry No.: 95398-45-1
Formal Name: (4R)-N-[(2E,4E,6E)-1-oxo-2,4,6-octatrien-1-yl]-L-phenylalanyl-L-seryl-L-prolyl-N-methyl-L-alanyl-L-alanyl-4-methyl-L-proline, (6→2)-lactone
Synonyms: ADEP 1, A-54556 Factor A

MF: C₃₈H₅₀N₆O₈
FW: 718.9
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

A-54556A is supplied as a solid. A stock solution may be made by dissolving the A-54556A in the solvent of choice, which should be purged with an inert gas. A-54556A is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

Description

A-54556A is an acyldepsipeptide (ADEP) antibiotic that has been found in *Streptomyces hawaiiensis*.¹ It is active against *B. subtilis*, *S. pyogenes*, and *E. faecalis*, as well as penicillin-resistant *S. pneumoniae*, vancomycin-resistant *E. faecium*, and methicillin-resistant *S. aureus* (MRSA; IC₅₀s = 0.2, 0.4, 0.4, 1.6, 0.4, and 6.3 µg/ml, respectively). It binds to and activates caseinolytic protease P (ClpP), inducing degradation of β-casein by the *B. subtilis* ClpP in an ATPase-independent manner when used at concentrations of 2.5 and 5 µg/ml.

Reference

1. Brötz-Oesterhelt, H., Beyer, D., Kroll, H.-P., et al. Dysregulation of bacterial proteolytic machinery by a new class of antibiotics. *Nat. Med.* **11**(10), 1082-1087 (2005).

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.

WARRANTY AND LIMITATION OF REMEDY

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