

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

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- Gefahrgutzuschlag
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# PRODUCT INFORMAT



### Aureobasidin A

Item No. 39722

CAS Registry No.: 127785-64-2

Formal Name: cyclo[L-alloisoleucyl-N-methyl-L-valyl-L-

> leucyl-N,3-dimethyl-L-threonyl-(2R,3R)-2-hydroxy-3-methylpentanoyl-N-methyl-L-valyl-L-phenylalanyl-N-methyl-L-

phenylalanyl-L-prolyl]

Antibiotic R 106I, Basifungin, LY295337, Synonyms:

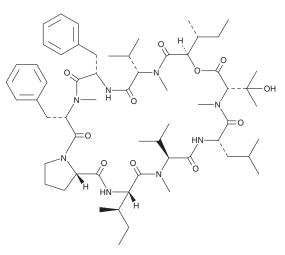
NK 204, R 106-1

MF:  $C_{60}H_{92}N_8O_{11}$ 

FW: 1,101.4 **Purity:** ≥95% Supplied as: A solid -20°C Storage: Stability: ≥4 years

Item Origin: Synthetic; originally from Aureobasidium pullulans

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



#### **Laboratory Procedures**

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

#### Description

Aureobasidin A is a cyclic depsipeptide that has been found in A. pullulans and has diverse biological activities. 1-3 It inhibits inositol phosphorylceramide synthase, an enzyme involved in sphingolipid biosynthesis (K<sub>i</sub>s = 0.18 and 0.23 for the *C. albicans* and *S. cerevisiae* enzymes, respectively). Aureobasidin A also inhibits P-glycoprotein (P-gp), also known as multidrug resistance protein 1 (MDR1; IC<sub>50</sub> = 2.27  $\mu$ M).<sup>2</sup> It is active against various mammalian pathogenic fungi, including Candida and Cryptococcus (MICs = <0.04-0.16 and 0.31-0.63 μg/ml, respectively), and the plant pathogenic fungus S. cerevisiae (MIC = 0.4 μg/ml).<sup>2,3</sup> Aureobasidin A (80 mg/kg, p.o.) increases survival in a mouse model of candidiasis induced by C. albicans.<sup>3</sup>

#### References

- 1. Aeed, P.A., Young, C.L., Nagiec, M.M., et al. Inhibition of inositol phosphorylceramide synthase by the cyclic peptide aureobasidin A. Antimicrob. Agents Chemother. 53(2), 496-504 (2009).
- Tiberghien, F., Kurome, T., Takesako, K., et al. Aureobasidins: Structure-activity relationships for the inhibition of the human MDR1 P-glycoprotein ABC-transporter. J. Med. Chem 43(13), 2547-2556 (2000).
- Takesako, K., Kuroda, H., Inoue, T., et al. Biological properties of aureobasidin A, a cyclic depsipeptide antifungal antibiotic. J. Antibiot. (Tokyo) 46(9), 1414-1420 (1993).

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

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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