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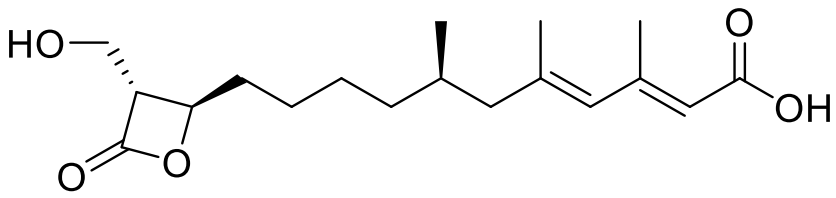
PRODUCT DATA SHEET

Hymeglusin

Code No.: **BIA-H2845**

Pack sizes: **1 mg, 5 mg**



Synonyms : (+)-F-(244), Antibiotic 1233A, Antibiotic F 244, F 244, L 659699

Specifications

CAS #	:	**29066-42-0**
Molecular Formula	:	**$C_{18}H_{28}O_5$**
Molecular Weight	:	**324.4**
Source	:	***Fusarium* sp.**
Appearance	:	**Off-white solid with pink tinge**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in methanol and DMSO.**

Application Notes

Hymeglusin is a β-lactone first isolated from a fungus tentatively assigned as Cephalosporium sp. by Turner and co-workers at ICI, United Kingdom in 1970. Subsequently the metabolite was identified as a potent antifungal named Antibiotics L-659699 and F 244 isolated independently from strains of Fusarium and Scopulariopsis. Hymeglusin potently and specifically inhibits eukaryotic 3-hydroxy-3-methylglutaryl-CoA (HMG-CoA) synthase. Hymeglusin blocks growth of Enterococcus faecalis and circumvents β-lactam resistance in methicillin-resistant S. aureus.

References

1. Aldridge D.C. et al. (1970). Antibiotic 1233A: a fungal β-lactone. J. Chem. Soc. Chem. Commun., 11, 639.
2. Tomoda H. et al. (2004). Binding site for fungal β-lactone hymeglusin on cytosolic 3-hydroxy-3-methylglutaryl coenzyme A synthase. Biochim. Biophys. Acta, 1636, 22.
3. Skaff D.A. et al. (2012). Biochemical and structural basis for inhibition of Enterococcus faecalis hydroxymethylglutaryl-CoA synthase, mvaS, by hymeglusin. Biochem., 51, 471.
4. Kanaida M. et al. (2021). Total syntheses and chemical biology studies of hymeglusin and fusarilactone A, novel circumventors of β-lactam resistance in methicillin-resistant Staphylococcus aureus. Chem. Med. Chem., 16, 2106.

For in vitro laboratory use only. Not for human or animal use.

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