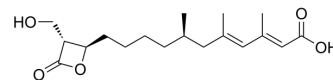


## Hymeglusin

<b>Cat. No.:</b>	HY-117430
<b>CAS No.:</b>	29066-42-0
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>28</sub> O <sub>5</sub>
<b>Molecular Weight:</b>	324.41
<b>Target:</b>	Antibiotic; Flavivirus; Dengue virus
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	-20°C, stored under nitrogen, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen, away from moisture)



### BIOLOGICAL ACTIVITY

<b>Description</b>	Hymeglusin, as a fungal $\beta$ -lactone antibiotic, is a HMG-CoA synthase inhibitor ( $IC_{50} = 0.12 \mu M$ ). Hymeglusin covalently modifies the active Cys <sup>129</sup> residue of the enzyme <sup>[2][3]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 1.2 $\mu M$ (HMG-CoA) <sup>[2][3]</sup>
<b>In Vitro</b>	Hymeglusin inhibits dengue type 2 (DEN-2) New Guinea C (NGC) live virus replication in K562 cells. The therapeutic index ( $CC_{50}/IC_{50}$ ) of Hymeglusin is 11. The $EC_{50}$ of Hymeglusin in K562 cells is 4.5 $\mu M$ <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	At a dose of 25 mg/kg, hymeglusin inhibits cholesterol biosynthesis in rats by 45 % <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Rothwell C, et al. Cholesterol biosynthesis modulation regulates dengue viral replication. *Virology*. 2009 Jun 20;389(1-2):18-19.
- [2]. Greenspan MD, et al. Inhibition of hydroxymethylglutaryl-coenzyme A synthase by L-659,699. *Proc Natl Acad Sci U S A*. 1987 Nov;84(21):7488-92.
- [3]. Tomoda H, et al. Binding site for fungal beta-lactone hymeglusin on cytosolic 3-hydroxy-3-methylglutaryl coenzyme A synthase. *Biochim Biophys Acta*. 2004 Feb 27;1636(1):22-8.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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