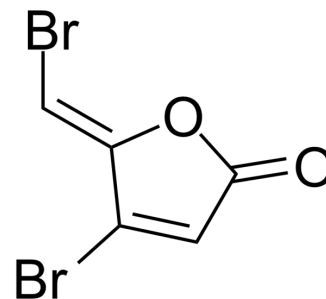


## Furanone C-30

<b>Cat. No.:</b>	HY-131011
<b>CAS No.:</b>	247167-54-0
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>2</sub> Br <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	253.88
<b>Target:</b>	Bacterial
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	-20°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### BIOLOGICAL ACTIVITY

<b>Description</b>	Furanone C-30 is a quorum sensing inhibitor. Furanone C-30 can effectively inhibit bacterial biofilm formation by <i>S. mutans</i> and its luxS mutant strain <sup>[1]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	Bacterial biofilm <sup>[1]</sup>								
<b>In Vitro</b>	<p>The difference in the OD590 values is statistically significant at concentrations of 2.0 µg/mL and 4.0 µg/mL compared with the control group. Furanone C-30 (2.0 µg/mL and 4.0 µg/mL) can inhibit biofilm formation by <i>S. mutans</i> and its luxS mutant strain, although it does not affect the bacterial growth rate itself<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>Streptococcus mutans UA159 and its luxS mutant strain</td> </tr> <tr> <td>Concentration:</td> <td>0.0, 2.0 and 4.0 µg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours</td> </tr> <tr> <td>Result:</td> <td>When 2.0 µg/mL was added, the OD590 values for <i>S. mutans</i> and its luxS mutant strain decreased by 42.7% and 40.8%, respectively. When the concentration was increased to 4.0 µg/mL, a decrease of 61.5% and 60.3%, respectively.</td> </tr> </table>	Cell Line:	Streptococcus mutans UA159 and its luxS mutant strain	Concentration:	0.0, 2.0 and 4.0 µg/mL	Incubation Time:	24 hours	Result:	When 2.0 µg/mL was added, the OD590 values for <i>S. mutans</i> and its luxS mutant strain decreased by 42.7% and 40.8%, respectively. When the concentration was increased to 4.0 µg/mL, a decrease of 61.5% and 60.3%, respectively.
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### CUSTOMER VALIDATION

- Microbiol Spectr. 2021 Nov 3;9(3):e0123121.

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### REFERENCES

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[1]. Zhiyan He, et al. Use of the quorum sensing inhibitor furanone C-30 to interfere with biofilm formation by *Streptococcus mutans* and its luxS mutant strain. *Int J Antimicrob Agents*. 2012 Jul;40(1):30-5.

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

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