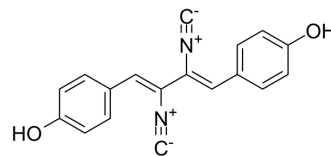


## Xantocillin

<b>Cat. No.:</b>	HY-122404
<b>CAS No.:</b>	580-74-5
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	288.3
<b>Target:</b>	MEK; ERK; Autophagy
<b>Pathway:</b>	MAPK/ERK Pathway; Stem Cell/Wnt; Autophagy
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Xantocillin (Xanthocillin X) is a marine agent extracted from <i>Penicillium commune</i> , induces autophagy through inhibition of the MEK/ERK pathway <sup>[1]</sup> .																
<b>In Vitro</b>	<p>Xantocillin (SD118-xanthocillin X (1)) (6.9-55.56 μM; 48 hours) has a significant inhibitory effect on the proliferation of HepG2 cells with an IC<sub>50</sub> of 22.88 ± 4.76 μM<sup>[1]</sup>.</p> <p>Xantocillin (SD118-xanthocillin X (1)) (24.3 μM; 12-48 hours) increases the expression of the autophagy-related genes, LC3, and Beclin 1<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>HepG2 cells</td> </tr> <tr> <td>Concentration:</td> <td>6.9 μM, 13.89 μM, 27.78 μM, 55.56 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 hours</td> </tr> <tr> <td>Result:</td> <td>A concentration-dependent inhibitory effect on cellular growth in the HepG2 cells with the IC<sub>50</sub> of 22.88 ± 4.76 μM.</td> </tr> </table> <p>Western Blot Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>HepG2 cells</td> </tr> <tr> <td>Concentration:</td> <td>24.3 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>12 hours, 24 hours, 48 hours</td> </tr> <tr> <td>Result:</td> <td>Increased the expression of the autophagy-related genes, LC3, and Beclin 1.</td> </tr> </table>	Cell Line:	HepG2 cells	Concentration:	6.9 μM, 13.89 μM, 27.78 μM, 55.56 μM	Incubation Time:	48 hours	Result:	A concentration-dependent inhibitory effect on cellular growth in the HepG2 cells with the IC <sub>50</sub> of 22.88 ± 4.76 μM.	Cell Line:	HepG2 cells	Concentration:	24.3 μM	Incubation Time:	12 hours, 24 hours, 48 hours	Result:	Increased the expression of the autophagy-related genes, LC3, and Beclin 1.
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### REFERENCES

[1]. Zhao Y, et al. SD118-xanthocillin X (1), a novel marine agent extracted from *Penicillium commune*, induces autophagy through the inhibition of the MEK/ERK pathway. *Mar Drugs*. 2012 Jun;10(6):1345-59.

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

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