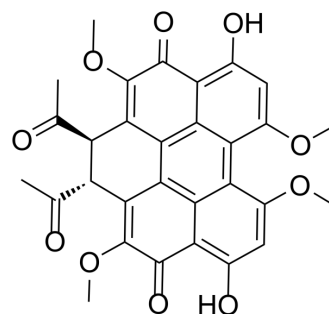


## Elsinochrome A

<b>Cat. No.:</b>	HY-N10611
<b>CAS No.:</b>	24568-67-0
<b>Molecular Formula:</b>	C <sub>30</sub> H <sub>24</sub> O <sub>10</sub>
<b>Molecular Weight:</b>	544.51
<b>Target:</b>	Reactive Oxygen Species; Apoptosis; Autophagy; Fungal; Fluorescent Dye
<b>Pathway:</b>	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Apoptosis; Autophagy; Anti-infection; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Elsinochrome A is a perylene quinone photosensitizer, and can generate reactive oxygen species (ROS) to induce apoptosis and autophagy under light excitation. Elsinochrome A also shows antifungal activity against <i>C. albicans</i> biofilm through photodynamic antimicrobial chemotherapy (PACT). Elsinochrome A can be used for research of photodynamic therapy (PDT) (Ex: 460 nm) <sup>[1][2]</sup> .																
<b>In Vitro</b>	<p>Elsinochrome A (0-3 μM, 5 min) reduces survival rate, induces intracellular ROS production, induces formation of autophagosomes and induces apoptosis under light illumination in B16 cells<sup>[1]</sup>.</p> <p>Elsinochrome A (0.3-3 μM, 5 min) is located in the mitochondria of the B16 cells<sup>[1]</sup>.</p> <p>Elsinochrome A (0-32 μg/mL, 24 or 48 h) shows antifungal activity against <i>C. albicans</i> after irradiation<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>RT-PCR<sup>[1]</sup></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Cell Line:</td> <td>B16 cells</td> </tr> <tr> <td>Concentration:</td> <td>0.3-3 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>5 min</td> </tr> <tr> <td>Result:</td> <td>Decreased expression of atg2, atg9 and atg10 genes. Increased expression of caspase2, caspase9 and tnfgenes.</td> </tr> </table> <p>Western Blot Analysis<sup>[1]</sup></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Cell Line:</td> <td>B16 cells</td> </tr> <tr> <td>Concentration:</td> <td>0.3-3 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>5 min</td> </tr> <tr> <td>Result:</td> <td>Decreased expression of Atg5 and CytC protein.</td> </tr> </table>	Cell Line:	B16 cells	Concentration:	0.3-3 μM	Incubation Time:	5 min	Result:	Decreased expression of atg2, atg9 and atg10 genes. Increased expression of caspase2, caspase9 and tnfgenes.	Cell Line:	B16 cells	Concentration:	0.3-3 μM	Incubation Time:	5 min	Result:	Decreased expression of Atg5 and CytC protein.
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### REFERENCES

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[1]. Yao Y, et al. Elsinochrome A induces cell apoptosis and autophagy in photodynamic therapy. J Cell Biochem. 2023 Sep;124(9):1346-1365.

[2]. Pan L, et al. Inhibitory Effects and Mechanism of Action of Elsinochrome A on Candida albicans and Its Biofilm. J Fungi (Basel). 2022 Aug 11;8(8):841.

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

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