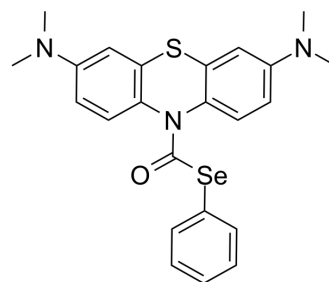


DHU-Se1

Cat. No.:	HY-151188
Molecular Formula:	C ₂₃ H ₂₃ N ₃ OSe
Molecular Weight:	468.47
Target:	NO Synthase; TNF Receptor
Pathway:	Immunology/Inflammation; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	DHU-Se1 is a potent anti-inflammatory agent. DHU-Se1 can stimulate macrophages to release the reactive selenium compound and reduce the expression of cellular inflammatory factors (eg: iNOS and TNF- α). DHU-Se1 alleviate the process of inflammation by blocking the polarization of macrophages from M0 to M1 ^[1] .																				
IC₅₀ & Target	Selenium, iNOS, TNF- α ^[1]																				
In Vitro	<p>DHU-Se1 (50 μM; 24 h) displays low biological toxicity in RAW cells^[1].</p> <p>DHU-Se1 (20 μM; 24 h) reduces the expression of cellular inflammatory factors^[1].</p> <p>DHU-Se1 (20 μM; 24 h) blocks the polarization of macrophages from M0 to M1 upon activation^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cytotoxicity Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>RAW cells</td> </tr> <tr> <td>Concentration:</td> <td>50 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Displayed low biological toxicity with a survival rate larger than 80%.</td> </tr> </table> <p>RT-PCR^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>RAW cells (co-treated with 100 ng/mL LPS)</td> </tr> <tr> <td>Concentration:</td> <td>20 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Reduced the expression of TNF-α and iNOS significantly.</td> </tr> </table> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>RAW 264.7 macrophages (co-treated with 100 ng/mL LPS)</td> </tr> <tr> <td>Concentration:</td> <td>20 μM</td> </tr> </table>	Cell Line:	RAW cells	Concentration:	50 μ M	Incubation Time:	24 h	Result:	Displayed low biological toxicity with a survival rate larger than 80%.	Cell Line:	RAW cells (co-treated with 100 ng/mL LPS)	Concentration:	20 μ M	Incubation Time:	24 h	Result:	Reduced the expression of TNF- α and iNOS significantly.	Cell Line:	RAW 264.7 macrophages (co-treated with 100 ng/mL LPS)	Concentration:	20 μ M
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Concentration:	20 μ M																				

Incubation Time:	24 h
Result:	Significantly decreased the expression level of iNOS, indicating that M0 to M1 polarization was blocked. Released the reactive selenium compound.

REFERENCES

[1]. Peng H, et al. HOCl-Activated Reactive Organic Selenium Delivery Platform for Alleviation of Inflammation. Bioconjug Chem. 2022 Aug 26.

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

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