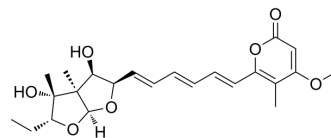


Asteltoxin

Cat. No.:	HY-119665
CAS No.:	79663-49-3
Molecular Formula:	C ₂₃ H ₃₀ O ₇
Molecular Weight:	418.48
Target:	AMPK; mTOR
Pathway:	Epigenetics; PI3K/Akt/mTOR
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Asteltoxin is an inhibitor for extracellular vesicles (EV), which exhibits inhibitory effects towards mitochondrial ATP synthase and mTORC1 activation ^[1] .																						
In Vitro	<p>Asteltoxin (1-100 µg/ml) inhibits the production of CD63-positive EV with IC₅₀ of 2.1 µg/ml and exhibits no significant cytotoxicity in HT29 cells^[1].</p> <p>Asteltoxin (1-10 µg/ml) activates AMPK pathways and inhibits mTORC1 pathways by inducing a decrease in ATP level, therefore activates lysosome function and inhibits the EV secretion of cancer cells PC-3^[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>HT-29</td> </tr> <tr> <td>Concentration:</td> <td>1-100 µg/ml</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Exhibited cytotoxicity with an IC₅₀ over 100 µg/ml.</td> </tr> </table> <p>Cell Proliferation Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>PC-3</td> </tr> <tr> <td>Concentration:</td> <td>1-10 µg/ml</td> </tr> <tr> <td>Incubation Time:</td> <td>3 days</td> </tr> <tr> <td>Result:</td> <td>Revealed no effect on anchorage-dependent growth of PC-3.</td> </tr> </table> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>PC-3</td> </tr> <tr> <td>Concentration:</td> <td>1-10 µg/ml</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> </table>	Cell Line:	HT-29	Concentration:	1-100 µg/ml	Incubation Time:	24 h	Result:	Exhibited cytotoxicity with an IC ₅₀ over 100 µg/ml.	Cell Line:	PC-3	Concentration:	1-10 µg/ml	Incubation Time:	3 days	Result:	Revealed no effect on anchorage-dependent growth of PC-3.	Cell Line:	PC-3	Concentration:	1-10 µg/ml	Incubation Time:	24 h
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	Concentration:	1-10 µg/ml																					
	Incubation Time:	24 h																					

Result:	Increased levels of pAMPK Decreased levels of pS6K and p4E-BP1.
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REFERENCES

[1]. Mitani F, et al., Asteltoxin inhibits extracellular vesicle production through AMPK/mTOR-mediated activation of lysosome function. Sci Rep. 2022 Apr 23;12(1):6674.

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

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