



# SZABO SCANDIC

Part of Europa Biosite

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Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



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- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

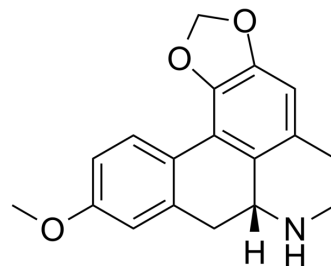
[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

## Xylopine

<b>Cat. No.:</b>	HY-N9534
<b>CAS No.:</b>	517-71-5
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>17</sub> NO <sub>3</sub>
<b>Molecular Weight:</b>	295.33
<b>Target:</b>	Reactive Oxygen Species; Apoptosis
<b>Pathway:</b>	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Apoptosis
<b>Storage:</b>	4°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>	Xylopine is an aporphine alkaloid with cytotoxic activity on cancer cells. Xylopine induces oxidative stress, causes G2/M cell cycle arrest and apoptosis in cancer cells <sup>[1]</sup> .																
<b>In Vitro</b>	<p>Xylopine (3.5 μM-14 μM; 24-48 hours) displays potent cytotoxicity in a time- and dose-dependent manner<sup>[1]</sup>.</p> <p>Xylopine (72 h) has cytotoxic activity, with IC<sub>50</sub> values ranging from 6.4 to 26.6 μM in eight different cancer cell lines (MCF7, HCT116, HepG2, SCC-9, HSC-3, HL-60, K-562, and B16-F10)<sup>[1]</sup>.</p> <p>Xylopine (3.5 μM-14 μM; 24-48 hours) causes cell cycle block at the phase G2/M, which is followed by internucleosomal DNA fragmentation<sup>[1]</sup>.</p> <p>Xylopine (3.5 μM-14 μM; 24-48 hours) significantly increases the early and late apoptosis, induces mitochondrial depolarization, and increases caspase-3 activation<sup>[1]</sup>.</p> <p>Xylopine also causes an increase in the production of reactive oxygen/nitrogen species (ROS/RNS), including hydrogen peroxide and nitric oxide, but not superoxide anion, and reduces glutathione levels are decreased in Xylopine-treated HCT116 cells<sup>[1]</sup>. HCT116 cells<sup>[1]</sup> 3.5 μM, 7 μM, and 14 μM 24 hours, 48 hours Induced G2/M phase arrest. HCT116 cells<sup>[1]</sup> 3.5 μM, 7 μM, and 14 μM 24 hours, 48 hours Significantly increased the early and late apoptosis.</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>HCT116 cells</td> </tr> <tr> <td>Concentration:</td> <td>3.5 μM, 7 μM, and 14 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours, 48 hours</td> </tr> <tr> <td>Result:</td> <td>Displayed potent cytotoxicity in HCT116 cells.</td> </tr> </table> <p>Cell Cycle Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>HCT116 cells</td> </tr> <tr> <td>Concentration:</td> <td>3.5 μM, 7 μM, and 14 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours, 48 hours</td> </tr> <tr> <td>Result:</td> <td>Induced G2/M phase arrest.</td> </tr> </table>	Cell Line:	HCT116 cells	Concentration:	3.5 μM, 7 μM, and 14 μM	Incubation Time:	24 hours, 48 hours	Result:	Displayed potent cytotoxicity in HCT116 cells.	Cell Line:	HCT116 cells	Concentration:	3.5 μM, 7 μM, and 14 μM	Incubation Time:	24 hours, 48 hours	Result:	Induced G2/M phase arrest.
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#### Apoptosis Analysis<sup>[1]</sup>

Cell Line:	HCT116 cells
Concentration:	3.5 $\mu$ M, 7 $\mu$ M, and 14 $\mu$ M
Incubation Time:	24 hours, 48 hours
Result:	Significantly increased the early and late apoptosis.

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## REFERENCES

[1]. Luciano de Souza Santos, et al. Xylopine Induces Oxidative Stress and Causes G 2/M Phase Arrest, Triggering Caspase-Mediated Apoptosis by p53-Independent Pathway in HCT116 Cells. *Oxid Med Cell Longev*. 2017;2017:7126872.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA