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### Zuschläge

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- Gefahrgutzuschlag
- Expressversand

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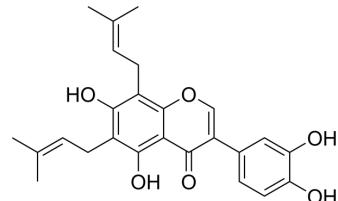
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## 6,8-Diprenylorobol

Cat. No.:	HY-N2693
CAS No.:	66777-70-6
Molecular Formula:	C <sub>25</sub> H <sub>26</sub> O <sub>6</sub>
Molecular Weight:	422.47
Target:	Apoptosis; Reactive Oxygen Species; Caspase; Akt; ERK; JNK; p38 MAPK; Bcl-2 Family
Pathway:	Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; PI3K/Akt/mTOR; MAPK/ERK Pathway; Stem Cell/Wnt
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	6,8-Diprenylorobol, a prenylated isoflavone, is a nature product that could be isolated from the leaves of Cudrania tricuspidata. 6,8-Diprenylorobol antiproliferative effect and induces apoptosis through activation of p53 and generation of ROS <sup>[1][2]</sup> .																						
In Vitro	<p>6,8-Diprenylorobol (20-60 μM; 24-72 h) inhibits proliferation in LoVo and HCT15 cells<sup>[1]</sup>.          6,8-Diprenylorobol (20-60 μM; 24 h) induces apoptosis and activates p53 and regulates MAPKs in LoVo and HCT15 cells<sup>[1]</sup>.          6,8-Diprenylorobol (20-60 μM; 1 h) increases ROS level in LoVo and HCT15 cells<sup>[1]</sup>.          MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p><b>Cell Viability Assay<sup>[1]</sup></b></p> <table border="1"> <tr> <td>Cell Line:</td> <td>LoVo and HCT15 cells</td> </tr> <tr> <td>Concentration:</td> <td>20, 40, and 60 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24, 48, and 72 hours</td> </tr> <tr> <td>Result:</td> <td>Inhibited the growth of LoVo and HCT15 cells in a dose- and time-dependent manner.</td> </tr> </table> <p><b>Apoptosis Analysis<sup>[1]</sup></b></p> <table border="1"> <tr> <td>Cell Line:</td> <td>LoVo and HCT15 cells</td> </tr> <tr> <td>Concentration:</td> <td>20, 40, and 60 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours</td> </tr> <tr> <td>Result:</td> <td>Induced apoptosis of LoVo and HCT15 cells in a dose- and time-dependent manner.</td> </tr> </table> <p><b>Western Blot Analysis<sup>[1]</sup></b></p> <table border="1"> <tr> <td>Cell Line:</td> <td>LoVo and HCT15 cells</td> </tr> <tr> <td>Concentration:</td> <td>20, 40, and 60 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24, 48, and 72 hours</td> </tr> </table>	Cell Line:	LoVo and HCT15 cells	Concentration:	20, 40, and 60 μM	Incubation Time:	24, 48, and 72 hours	Result:	Inhibited the growth of LoVo and HCT15 cells in a dose- and time-dependent manner.	Cell Line:	LoVo and HCT15 cells	Concentration:	20, 40, and 60 μM	Incubation Time:	24 hours	Result:	Induced apoptosis of LoVo and HCT15 cells in a dose- and time-dependent manner.	Cell Line:	LoVo and HCT15 cells	Concentration:	20, 40, and 60 μM	Incubation Time:	24, 48, and 72 hours
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Result:	Decreased the expression of PARP and increased the expression of cleaved PARP. Up-regulated Bax and Bim expressions and downregulated Bcl-2 expression. Up-regulated cleaved caspase-3, -7, -8, and -9 expressions, and down-regulated procaspase-3, -7, -8, and -9 expressions. Decreased the expression of phosphorylated Akt, ERK, JNK, and p38 and increased the expression of FOXO3, p53, p27, and p21.
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## REFERENCES

- [1]. Choi YJ, et, al. 6,8-Diprenylorobol induces apoptosis in human colon cancer cells via activation of intracellular reactive oxygen species and p53. Environ Toxicol. 2021 May;36(5):914-925.
- [2]. Tuan Anh HL, et, al. Prenylated isoflavones from Cudrania tricuspidata inhibit NO production in RAW 264.7 macrophages and suppress HL-60 cells proliferation. J Asian Nat Prod Res. 2017 May;19(5):510-518.

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

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