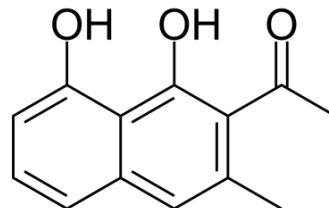


## Nepodin

<b>Cat. No.:</b>	HY-N5018
<b>CAS No.:</b>	3785-24-8
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>12</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	216.23
<b>Target:</b>	Parasite; AMPK
<b>Pathway:</b>	Anti-infection; Epigenetics; PI3K/Akt/mTOR
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Nepodin (Musizin) is a quinone oxidoreductase (PfNDH2) inhibitor isolate from <i>Rumex crispus</i> <sup>[1]</sup> . Nepodin (Musizin) stimulates the translocation of GLUT4 to the plasma membrane by activation of AMPK <sup>[2]</sup> . Nepodin (Musizin) has antidiabetic and antimalarial activities.								
<b>In Vitro</b>	Nepodin (Musizin) exhibits significant IC <sub>50</sub> values that are 0.74 and 0.79 µg/ml against <i>P. falciparum</i> chloroquine-sensitive (3D7) and <i>P. falciparum</i> chloroquine-resistant (S20), respectively <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
<b>In Vivo</b>	Nepodin (Musizin) (orally administration; 2-10 mg/kg; 4 weeks) improves the impaired glucose tolerance of db/db mice, also decreases an increase in plasma insulin concentration of db/db mice in a dose-dependent manner <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Animal Model:</td> <td>C57BL/KsJ-db/db mice<sup>[2]</sup></td> </tr> <tr> <td>Dosage:</td> <td>2 mg/kg; 10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Orally administration; 2-10 mg/kg; 4 weeks</td> </tr> <tr> <td>Result:</td> <td>Had antihyperglycemic potential and improved insulin resistance.</td> </tr> </table>	Animal Model:	C57BL/KsJ-db/db mice <sup>[2]</sup>	Dosage:	2 mg/kg; 10 mg/kg	Administration:	Orally administration; 2-10 mg/kg; 4 weeks	Result:	Had antihyperglycemic potential and improved insulin resistance.
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### REFERENCES

[1]. Lee KH, et al. Antimalarial activity of nepodin isolated from *Rumex crispus*. Arch Pharm Res. 2013 Apr;36(4):430-5.

[2]. Ha BG, et al. Antidiabetic effect of nepodin, a component of *Rumex* roots, and its modes of action in vitro and in vivo. Biofactors. 2014 Jul-Aug;40(4):436-47.

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

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