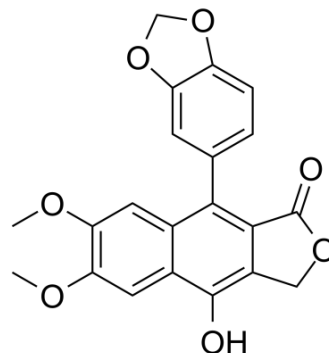


## Diphyllin

<b>Cat. No.:</b>	HY-N2532
<b>CAS No.:</b>	22055-22-7
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>16</sub> O <sub>7</sub>
<b>Molecular Weight:</b>	380.35
<b>Target:</b>	HIV; Proton Pump; Influenza Virus
<b>Pathway:</b>	Anti-infection; Membrane Transporter/Ion Channel
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Diphyllin is an aryl naphthalene lignan isolated from <i>Justicia procumbens</i> and is a potent HIV-1 inhibitor with an IC <sub>50</sub> of 0.38 μM. Diphyllin is active against vesicular stomatitis virus (VSV) and influenza virus <sup>[1]</sup> . Diphyllin is a vacuolar type H <sup>+</sup> -ATPase (V-ATPase) inhibitor with an IC <sub>50</sub> value of 17 nM and inhibits lysosomal acidification in human osteoclasts <sup>[2]</sup> . Diphyllin inhibits NO production with an IC <sub>50</sub> of 50 μM and has anticancer and anti-inflammatory activities <sup>[3]</sup> .		
<b>IC<sub>50</sub> &amp; Target</b>	HIV-1 0.38 μM (IC <sub>50</sub> )	Vacuolar type H <sup>+</sup> -ATPase 17 nM (IC <sub>50</sub> )	Vesicular stomatitis virus (VSV)

### REFERENCES

- [1]. Xin-Ya Xu, et al. Anti-HIV Lignans From *Justicia Procumbens*. *Chin J Nat Med*. 2019 Dec;17(12):945-952.
- [2]. Mette G Sørensen, et al. Diphyllin, a Novel and Naturally Potent V-ATPase Inhibitor, Abrogates Acidification of the Osteoclastic Resorption Lacunae and Bone Resorption. *J Bone Miner Res*. 2007 Oct;22(10):1640-8.
- [3]. Yerra Koteswara Rao, et al. Anti-inflammatory Activities of Constituents Isolated From *Phyllanthus Polyphyllus*. *J Ethnopharmacol*. 2006 Jan 16;103(2):181-6.

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

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