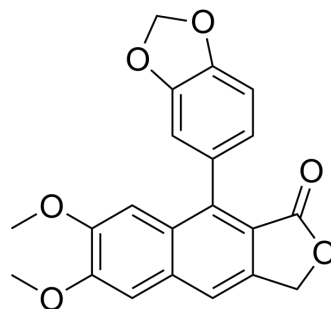


Justicidin B

Cat. No.:	HY-114275
CAS No.:	17951-19-8
Molecular Formula:	C ₂₁ H ₁₆ O ₆
Molecular Weight:	364
Target:	Fungal; Parasite; Apoptosis
Pathway:	Anti-infection; Apoptosis
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



BIOLOGICAL ACTIVITY

Description	Justicidin B is a potent anticancer lignan and proapoptotic agent. Justicidin B is also a bone resorption inhibitor, and has strong antiviral, fungicidal, antiprotozoal effects. Justicidin B significantly inhibits platelet aggregation ^{[1][2][3]} .
IC₅₀ & Target	Trypanosoma
In Vitro	<p>Justicidin B inhibits the growth of the pathogenic fungi <i>Aspergillus fumigatus</i> (MIC ≥ 1 µg/mL), <i>Aspergillus flavus</i> (MIC ≥ 12 µg/mL), and <i>Candida albicans</i> (MIC ≥ 4 µg/mL), but is not effective against <i>Cryptococcus neoformans</i> and <i>Blastoschizomyces capitatus</i>^[1].</p> <p>Justicidin B also exhibits strong activity against the trypomastigote form of <i>Trypanosoma brucei rhodesiense</i> (IC₅₀ = 0.2 µg/mL) and moderate activity against <i>Trypanosoma cruzi</i> (IC₅₀ = 2.6 µg/mL)^[1].</p> <p>Justicidin B shows cytotoxic activity and induction of apoptosis in MDA-MB-231 and MCF-7 breast cancer derived cell lines. The 24 h treatment of both cell lines increased the level of apoptotic DNA fragmentation. Exposure of MDA-MB-231 cells with Justicidin B leads to concentration dependent decrease in the expression of NFκB; whereas the treatment of MCF-7, is consistent with strong increase in the expression of this transcription factor^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. Jürg Gertsch, et al. Antifungal, antiprotozoal, cytotoxic and piscicidal properties of Justicidin B and a new aryl-naphthalide lignan from *Phyllanthus piscatorum*. *Planta Med.* 2003 May;69(5):420-4.
- [2]. G Momekov, et al. Effect of justicidin B - a potent cytotoxic and pro-apoptotic aryl-naphthalene lignan on human breast cancer-derived cell lines. *Neoplasma.* 2011;58(4):320-5.
- [3]. Iliana Ionkova, et al. *Linum narbonense*: A new valuable tool for biotechnological production of a potent anticancer lignan Justicidine B. *Pharmacogn Mag.* 2013 Jan;9(33):39-44.

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

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