Accepted Manuscript

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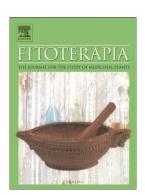
PII: S0367-326X(16)30022-3

DOI: doi: 10.1016/j.fitote.2016.02.005

Reference: FITOTE 3352

To appear in: Fitoterapia

Received date: 27 December 2015 Revised date: 3 February 2016 Accepted date: 4 February 2016



Please cite this article as: Mo Wang, Zhang-Hua Sun, Yu-Chan Chen, Hong-Xin Liu, Hao-Hua Li, Guo-Hui Tan, Sai-Ni Li, Xiao-Ling Guo, Wei-Min Zhang, Cytotoxic cochlioquinone derivatives from the endophytic fungus *Bipolaris sorokiniana* derived from *Pogostemon cablin, Fitoterapia* (2016), doi: 10.1016/j.fitote.2016.02.005

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ACCEPTED MANUSCRIPT

Cytotoxic Cochlioquinone Derivatives from the Endophytic Fungus *Bipolaris sorokiniana* Derived from *Pogostemon cablin*

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ABSTRACT

Chemical investigation of the liquid culture of the endophytic fungus *Bipolaris sorokiniana* A606, which was isolated from the medicinal plant *Pogostemon cablin* resulted in the isolation of four new cytotoxic compounds, named isocochlioquinones D–E (1–2) and cochlioquinones G–H (3–4), along with five known cochlioquinone analogues (5–9). Their structures were determined on the basis of extensive spectroscopic analysis. Isocochlioquinone D (1) possessed a rare benzothiazin-3-one moiety and cochlioquinone G (3) was the first example of cochlioquinones bearing an indole-4,7-dione fragment. All of the isolates (1–9) were evaluated for their cytotoxic activities against MCF-7, NCI-H460, SF-268 and HepG-2 tumor cell lines by the sulforhodamine B (SRB) assay. Compounds 4 and 6–9, featuring a cochlioquinone core, exhibited potent cytotoxicities *in vitro* against the four tumor cell lines, and a preliminary structure-activity relationship of these compounds was also discussed.

Keywords: *Bipolaris sorokiniana*; endophytic fungus; *Pogostemon cablin*; cochlioquinones; cytotoxic activity

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