

CHEMICAL CONSTITUENTS ISOLATED FROM *SCEDOSPORIUM* *APIOSPERMUM*

Andrey M. R. Marinho, Jorgeffson S. Cordeiro, Patrícia S. B. Marinho

Federal University of Pará, Belém, Brazil; andrey@ufpa.br

Abstract: *Scedosporium apiospermum* is a fungus that cause skin disease, the infections caused by *S. apiospermum* can be serious when it occurs in immunosuppressed patients [1]. In this work *S. apiospermum* was isolated as endophytic from *Bauhinia guianensis*, a typical Amazon plant used in folk medicine to treatment of infections [2]. One strain is deposited at “Laboratorio de Bioensaios e Química de Micro-organismos – LaBQuiM / UFPA” as a code EJCP13. The fungus was cultivated in twenty Erlenmeyer flasks (1000 mL) containing 200 g of rice (“Uncle’s Been®”) and 75 mL of water per flasks were autoclaved for 45 min at 121 °C. Small pieces of PDA containing mycelium of *S. apiospermum* were added to 18 Erlenmeyer flasks under sterile conditions, then the Erlenmeyer flasks were incubated at 25 °C for 23 days for colony growth, two Erlenmeyer flasks were used as control. Biomass was macerated with hexane, ethyl acetate and methanol, in which the hexane (5.44 g), ethyl acetate (27.09 g) and MeOH (26.70 g) extracts were obtained after evaporation in rotary evaporator of resulting solutions. The ethyl acetate extract (5.0 g) was fractionated on silica column using a mixture of hexane, ethyl acetate and methanol, in order increasing polarity, as eluent. The resulting fractions were successively chromatographed on silica gel CC by using hexane, ethyl acetate and methanol as mobile phase in a gradient of polarity and monitored by TLC. The isolated compounds were identified by NMR and MS. Following chemical constituents were isolated brefeldin-A (1), ergosterol (2), ergosterol peroxide (3), cerivisterol (4). Brefeldin-A (1) (Figure 1) is a macrocyclic lactone fungal metabolite exhibiting a wide range of antifungal, antiviral, antimitotic and antitumor activity [3]. It is the first report of the isolation of brefeldin-A from *Scedosporium* genus.

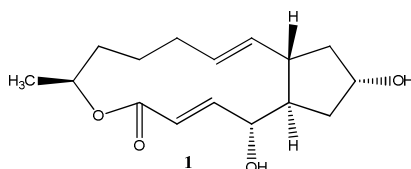


Figure 1. Brefeldin-A (1) isolated from *S. apiospermum*

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 - [3] Glaser, R., Shiftan, D., Froimowitz, M. 2000. NMR structure determination of brefeldin-A, a 13-membered ring fungal metabolite. *Magn. Reson. Chem.* 38: 274-280.
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