

チヨウセンアサガオ由来オフィオボリンA高産生量糸状菌

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High ophiobolin A production in endophytic fungus *Bipolaris* sp. associated with *Datura metel*

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ABSTRACT Ophiobolin A, a metabolite of fungi, is known to induce cell death and have anticancer activity. Therefore, obtaining ophiobolin A has become an important aspect in studying activity with medicinal properties that are affected by it. Ophiobolin A-producing filamentous fungi are endophytic or infectious microbes that attack annual and short-cycle plants. Here we isolated the endophyte of *Datura metel*, which is an annual plant that produces ophiobolin A. Results of this study have led to the identification of an endophytic filamentous fungus *Bipolaris* sp. with high ophiobolin A production (235 mg/L) in liquid culture after 21 days. Our findings further indicate that ophiobolin A-producing fungi live in short-cycle plants, and a method of finding the fungus is described.

抄録 オフィオボリンAは細胞死を誘導することで知られる糸状菌の産生物である。それ故に、オフィオボリンAの獲得は薬理学的な研究を行うために必要になると予想される。オフィオボリンA産生菌は一年草や短い周期の植物に寄生もしくは共生している。我々は短い周期の植物に焦点を当てて、オフィオボリンAを高い量で産生する糸状菌を見い出すことに成功した。