

## Antifungal Activity Extract of Indonesia Marine Derived *Actinomycetes* Againsts *Fusarium oxysporum*

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### Abstract

The use of synthetic pesticides to control phytopathogens has an impact on health and the environment. On the other hand, *actinomycetes* are a source of natural compounds that are not only used in the pharmaceutical industry but also in the agricultural sector. This study aims to filter the active ingredient compounds from *actinomycetes* isolate extracts as antifungal compounds. In this study, some *actinomycetes* isolates were selected which were deposited at UPT LTSIT. *Actinomycetes* were cultured in liquid fermentation under static conditions on 1% colloidal chitin media. The culture results were extracted using organic solvent, then the extract was tested against *Fusarium oxysporum*. The results of activity test against *Fusarium oxysporum* were observed based on the inhibition of fungal growth measured at OD<sub>630nm</sub>. The interpretation of the data after 48 hours showed that the 19C38A1 had the highest activity to inhibit the fungal growth. Based on the test results showed that *actinomycetes* were able to produce secondary metabolites as antifungal compounds. The results of this study provide important preliminary information for further research on the study of antifungal compound

**Keywords:** *Actinomycetes*, antifungal, colloidal chitin, *Fusarium oxysporum*

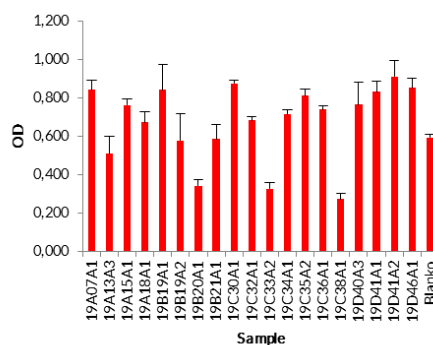


Figure 1. Result of antifungal assay

### References/Background Review Article

1. Köhl J, Kolnaar R and Ravensberg WJ (2019) *Mode of Action of Microbial Biological Control Agents Against Plant Diseases: Relevance Beyond Efficacy*. *Front. Plant Sci.* **10**:845

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**Dear Mr. Fendi Setiawann**  
**ID Registration No. 50**  
**Lampung University**

We are pleased to inform you that your abstract entitled "**Antifungal Activity Extract of Indonesia Marine Derived Actinomycetes Againsts *Fusarium oxysporum***" has been accepted for **ORAL presentation** by the scientific committee of the **2nd International Conference on Chemistry, Pharmacy, and Medical Sciences (ICCPM 2021)**. Please note that the conference web site is: <http://icppm.fmipa.unib.ac.id/2nd> which is being updated regularly and provides information on the program and schedules. The detailed program for the conference will be posted on the website around mid-November 2021.

We also would like to inform you that ICCPM 2021 is collaborating with **Indonesian Journal of Chemistry (Scopus Q3), Science and Technology Indonesia (Scopus), Jurnal Kimia Sains dan Aplikasi (Sinta 2), Bencoolen Journal of Pharmacy, and Rafflesia Journal of Natural and Applied Sciences** for an opportunity to publish the selected papers. We request the additional fee for the selected papers according to the publication fee of each journal (adjust to journal publication fees).

You are kindly requested to make payment amount **IDR 100.000 for presenter non proceeding** and **IDR 350.000 for presenter with proceeding** no later than November 1<sup>st</sup>, 2021. The payment should be transferred to Bank : **MANDIRI**; Account Name : **Ria Nurwidiyani**; Account Number : **179-00-0240884-2**; Branch : **Bengkulu**; Swift Code : **BMRIIDJA107**.

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Yours sincerely,

**Dr. Charles Banon, M.Si.**  
Conference General Chair