

**ANTIDIARRHOEAL ACTIVITIES OF CRUDE EXTRACTS FROM  
TETRA-LUMINA LACERATE**

**ZURaida Binti MOHAMAD**

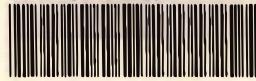
**FAKULTI SAINS DAN KETENOLOKI  
UNIVERSITI MAJLIS ULAMAR TERENGGANU  
2007**

C/W: 4/22/04

Perp

Perpustakaan Sultanah Nur Zahirah (UMT)  
Universiti Malaysia Terengganu

LP 2 FST 2 2007



1100051115

## **Antifungal activities of crude extracts from free-living amoebae Adida Zuraida Mohamad.**



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ANTIFUNGAL ACTIVITIES OF CRUDE EXTRACTS FROM FREE-LIVING  
AMOEBAE

By

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Research Report submitted in partial fulfillment of  
the requirements for the degree of  
Bachelor of Science (Biological Sciences)

Department of Biological Sciences  
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UNIVERSITI TERENGGANU MALAYSIA  
2007

1100051115

This project should be cited as:

Adida, Z. M. 2007. Antifungal activities of crude extracts from free-living amoebae, Bachelor of Science (Biological Sciences), Faculty of Science and Technology, Universiti Malaysia Terengganu. 49p.

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PROJEK PENYELIDIKAN I DAN II  
*RESEARCH REPORT VERIFICATION*

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## **ACKNOWLEDGEMENTS**

Alhamdulillah and thanks to Allah S.W.T for blessing and giving me strength to accomplish the experiment and report writing.

First of all, I want to appreciation to my supervisor, Professor Madya Dr. Nakisah binti Mat Amin and Professor Darah binti Ibrahim from Microbiology Department, Universiti Sains Malaysia, Penang for kindly supply the pathogenic fungal. Their guidance and encouragement for the project was amazing. I have learned so much from them and expand my horizon through the experience that I have gain. I am also wanted to appreciate all lecturers for the comments and advise, master students, Kak Ida, Kak Pae, Kak Kiah, Kak Dah, Kak Shade, Kak Fizah and lab assistants especially Puan Zarina, Puan Ku Naiza, Puan Fatimah and others for their dedication to help me.

Lastly, I would like to convey my special appreciation to my beloved parents, Ariffin bin Ismail and Che Som binti Busu, my beloved fiance, Mohd Ezwan bin Mohd Zin and my friends especially Wana, Lami, Dill, Alan, Tiqah and all my housemates for their supports and encouragement in completing my project. Nevertheless, their passion to help others was the greatest thing somebody can give.

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## **LIST OF ABBREVIATIONS**

Abs	absorbance
$\mu\text{m}$	micrometer
%	percentage
$^{\circ}\text{C}$	Degree of Celcius
g	gram
ml	mililiter
mg	miligram
mg/ml	miligram per mililiter
rpm	rotation per minute
$\mu\text{l}$	microliter
$\mu\text{m}$	micrometer
$\mu\text{g}$	microgram
L	liter
Te5	Tetracycline 5 $\mu\text{g}$

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## ABSTRACT

In this study, extracts of two free-living amoebae, *Acanthamoeba* strain (AK) and *Acanthamoeba polyphaga* strain (AP) were tested on pathogenic fungus *Aspergillus niger*. Both strains of *Acanthamoeba* where axenically cultured in Protease Peptone D-glucose (PPG) media at Biotechnology 3 Laboratory, INOS, Universiti Malaysia Terengganu. The amoebae extracts of AK and AP were prepared in varies concentration (0.5, 1, 2, 4, 6, 8, 10 and 12 mg/ml) and were tested on *Aspergillus niger*. Thirty  $\mu$ l of each extracts concentration were drop on plain discs. The disc was left for a few minutes before placed onto treatment plate. For the screening process, two techniques (streaking plate technique and pour plate technique) were done to see if it has any differences in result obtained between the two techniques employed. The observation was done after 24 and 72 hours. *Aspergillus* spp. are well-known filamentous fungi to play a role in three different clinical settings in man: (i) opportunistic infections; (ii) allergic states; and (iii) toxicoses. Results obtained from this study show that both extracts at various concentration which had been used in treatment on this fungus have no antifungal potential against *Aspergillus niger*. There was no inhibition zone seen at all concentration of the extracts used indicates that the amoebae extracts did not have antifungal activities.

## AKTIVITI ANTIKULAT DARIPADA EKSTRAK MENTAH AMEBA

### ABSTRAK

Dua ekstrak daripada ameba iaitu *Acanthamoeba* strain (AK) dan *Acanthamoeba polyphaga* strain (AP) telah dirawat ke atas kulat patogenik, *Aspergillus niger* dalam kajian ini. Kedua-dua strain ameba dibiakkan di dalam media Peptone D-glucose (PPG) di Makmal Bioteknologi 3, INOS, Universiti Malaysia Terengganu. Kedua-dua ekstrak ameba iaitu AK dan AP disediakan pada kepekatan yang berbeza (0.5, 1, 2, 4, 6, 8, 10 dan 12 mg/ml) dan diuji ke atas *Aspergillus niger*. Sebanyak 30  $\mu$ l ekstrak bagi semua kepekatan dititikkan ke atas disk kosong. Disk dibiarkan kering selama beberapa minit sebelum diletakkan ke atas plat rawatan. Bagi proses saringan, dua teknik (teknik plat coretan dan taknik plat tuangan) diaplikasikan untuk melihat sama ada terdapat perbezaan dalam keputusan yang diperolehi bagi kedua-dua teknik tersebut. Pemerhatian dilakukan selepas 24 dan 72 jam. Kulat *Aspergillus* diketahui umum memainkan peranan dalam tiga keadaan yang berbeza dalam tubuh manusia: (i) jangkitan bersifat oportunistik; (ii) menunjukkan alergi; dan (iii) ketoksikan. Keputusan dari kajian ini menunjukkan kesemua ekstrak yang digunakan tidak berpotensi melawan *Aspergillus niger*. Pada semua kepekatan ekstrak yang digunakan, didapati tiada zon perencutan yang menunjukkan ekstrak ameba tidak mempunyai aktiviti antikulat .