### PURIFICATION AND EVALUATION OF BILIRUBIN OXIDASE ISOLATED FROM *Myrothecium verrucaria* TISTR 3112 AND TISTR 3225

CHALEE PHROMNOI

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF SCIENCE
IN MEDICAL TECHNOLOGY

GRADUATE SCHOOL CHIANG MAI UNIVERSITY MAY 2000

## PURIFICATION AND EVALUATION OF BILIRUBIN OXIDASE ISOLATED FROM Myrothecium verrucaria TISTR 3112 AND TISTR 3225

#### CHALEE PHROMNOI

# THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN MEDICAL TECHNOLOGY

EXAMINING COMMITTEE	
R. Nimsung Associate Professor Rujapa Nimsung	CHAIRMAN
A. Haesmalaren. Assistant Professor Dr. Audomsark Haesungcharern	MEMBER
Assistant Professor Dr. Prachya Kongtawelert	MEMBER
Bong katuan Sulabhaha. Assistant Professor Bongkotwan Sutabhaha	MEMBER

19 May 2000 Copyright by the Graduate School, Chiang Mai University

#### ACKNOWLEDGEMENT

I would like to express my sincere gratitude and appreciation to my advisor, Associate Professsor Rujapa Nimsung, for her excellent guidance and continuous discussion. Without her support and encouragement, this thesis would not have been completed successfully. Her kidness and sincerity will be remembered forever.

My great appreciation is also expressed to Lecturer Khajornsak Tragoolpua, my co-adivisor, for his invaluable suggestion and advice. His name was not included in the examining of committee because he had left for Japan when I defended my thesis.

I give my gratitude to Assistant Professor Dr. Audomsark Haesungcharern, Department of Clinical Chemistry and Assistant Professor Bongkotwan Sutabhaha, Department of Clinical Microbiology, Faculty of Associated Medical Sciences, Assistant Professor Dr. Prachya Kongtawelert, Department of Biochemistry, Faculty of Medicine for their advices and prove reading of my thesis articles, particularly to Assistant Professor Dr. Prachya who offered me some molecular weight markers for this study. I would like to offer my special thanks for their kindness.

Many thanks are also given to my dear friends in Faculty of Associated Medical Sciences, Chiang Mai University, for their help and warm friendship.

My heart felts thanks go to my wife and everybody in my family for their patience, understanding and encouragement throughout my study.

In addition, I would like to express my special appreciation to the board of directors of Somdejphrajaotaksinmaharaj Hospital, Tak, for their permission to study for this degree.

Finally, I would like to thank the Department of Clinical Chemistry and Clinical Microbiology, Faculty of Associated Medical Sciences, Chiang Mai University for their supports in providing instruments and a place to study and the Graduate School, Chiang Mai University for allowing me to have this project investigated.

Chalee Phromnoi