

CHARACTERIZATION OF MOLECULAR DEFECTS IN
HEMOGLOBIN H PATIENTS BY NON-RADIOACTIVE
SOUTHERN HYBRIDIZATION

ROONGSIRI MUANGMOONCHAI

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF SCIENCE
IN BIOCHEMISTRY

GRADUATE SCHOOL
CHIANG MAI UNIVERSITY

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright © by Chiang Mai University

All rights reserved

JULY 1994

CHARACTERIZATION OF MOLECULAR DEFECTS IN
HEMOGLOBIN H PATIENTS BY NON-RADIOACTIVE
SOUTHERN HYBRIDIZATION

ROONGSIRI MUANGMOONCHAI

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

EXAMINING COMMITTEE:

Luksana M......CHAIRMAN

(Assistant Professor Dr. Luksana Makonkawkeyoon)

Panja Kulapong.....MEMBER

(Associate Professor Dr. Panja Kulapong)

Porn-ngam Limtrakul.....MEMBER

(Assistant Professor Dr. Porn-ngam Limtrakul)

Kongtawelert, P......MEMBER

(Assistant Professor Dr. Prachya Kongtawelert)

DATE 11 MONTH July YEAR 1994

ACKNOWLEDGEMENTS

I first wants to express my gratitude and deepest appreciation to Assistant Professor Dr. Luksana Makonkawkeyoon for her excellent guidance, valuable advice, patience, and her kindest encouragement throughout this study.

I am also indepted to express my appreciation to Dr. Nopporn Sittisombat, Department of Microbiology, Faculty of Medicine for his valuable advice, suggestion, and sincere help.

I extends my gracious thanks to Dr.Hiroshi Takei , Department of Biochemistry II, Faculty of Medicine University of Ryukyu, Japan for providing the recombinant plasmid pEMBL α and pEMBL ζ and some reagents.

My deep gratitude is heartily expressed to Professor Dr.Floyd W. Dunn for his kindly partially proof-reading the manuscript.

Many thanks are also given to Miss Suwanna Buasaengchan and all dear graduated students of the Department of Biochemistry for their helps and a warm friendship throughout my study.

I am pleased to acknowledge the Department of Biochemistry for provision of laboratory facilities.

And finally, the undying indeptness to my parents, cousin, and Mr. Wirote Chotpatiwetkul for their love, understanding, encouragement, teaching the meaning of excellence and the invaluable sacrifices.

This work was supported by the Faculty of Medicine Endowment Fund for Medical research, Chiang Mai University, Thailand.