DISTINCTION OF HEPATOCELLULAR CARCINOMA CELL AND ITS CORRESPONDING HEPATITIS VIRUS TRANSFECTION BY SPIOs-MODIFIED DEXTRAN-

RHODAMINE B STAINING

52837

APIJIT CHAICHANA

MASTER OF SCIENCE IN MEDICAL RADIATION SCIENCES

aans university Copyright[©] by Chiang Mai University A I I I I GRADUATE SCHOOL CHIANG MAI UNIVERSITY MARCH 2014

DISTINCTION OF HEPATOCELLULAR CARCINOMA CELL AND ITS CORRESPONDING HEPATITIS VIRUS TRANSFECTION BY SPIOs-MODIFIED DEXTRAN-RHODAMINE B STAINING

APIJIT CHAICHANA

A THESIS SUBMITTED TO CHIANG MAI UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQEIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN MEDICAL RADIATION SCIENCES Copyright by Chiang Mai University A I r i g h t s r e s e r v e d

GRADUATE SCHOOL, CHIANG MAI UNIVERSITY

MARCH 2014

DISTINCTION OF HEPATOCELLULAR CARCINOMA AND ITS **CORRESPONDING HEPATITIS VIRUS TRANSFECTION BY SPIOs-MODIFIED DEXTRAN-RHODAMINE B STAINING**

APIJIT CHAICHANA

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

Examination Committee:

Advisor :

.....Chairman (Assoc. Prof. Dr. Pirash Saiviroonporn)

c. Prof. Dr. Samlee Mankhetkorn)

eserved

ายาลัยเชียงใหม่

... Member (Lect. Dr. Nathupakorn Dechsupa)

Member (Lect. Dr. Chalermchai Pilapong)

niang Mai UniversityMember ssoc. Prof. Dr. Samlee Mankhetkorn)

29 March 2014

Copyright © by Chiang Mai University

This thesis book is dedicated to my parents for their love and support. To my advisor, Prof. Dr. Samlee Mankhetkron who give me vision, scientific perspective, inspiration and chance.

NHEIH TO 2/2

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม Copyright[©] by Chiang Mai University All rights reserved

CHER AGMAI

ACKNOWLEDGEMENT

I would like to express my very great appreciation to Prof. Dr. Samlee Mankhetkorn, my research advisor, for his guidance, encouragement, kind, patient, opportunities and moral.

I would also like to extend my thanks to team of Center of Excellent for Molecular Imaging in Department of Radiologic Technology, Faculty of Associated Medical Sciences, Chiang Mai University for their support.

I would like to thank the National Research Universities and the Bureau of Graduate study, Faculty of Associated Medical Sciences, Chiang Mai University for their financial support.

Finally, I wish to thank my parents for their support throughout my study.

TAG MAI

Apijit Chaichanaຄິປສິກສົ້ມກາວິກຍາລັຍເຮີຍວິເກມCopyright[©] by Chiang Mai UniversityAll rights reserved