

# بسم الله الرحمن الرحيم



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شبكة المعلومات الجامعية التوثيق الالكتروني والميكرونيلم





## جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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SUEZ CANAL UNIVERSITY FACULTY OF VET. MEDECINE DEPT. OF ANIMAL MEDICINE

# IMMUNO-MOLECULAR STUDIES ON BABESIOSIS

Thesis presented By

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Dedicated to
My Wife
My Parent
My Kids
My Sisters

#### **Abstract**

Babesiosis one of the most important diseases that limits the production and improvement of animal production in tropical and subtropical regions. cysteine proteases is an important enzyme for the life cycle and pathogenisis of many parasites. *Babesia microti* was used as a model for babesia species in this study. Two different genes of cysteine proteases were found in the genome of babesia microti, one of them is a single copy (CP1) and the other is a multiple copies (CP2). The whole sequence of cysteine protease genes of *babesia microti* were isolated. Activity of cysteine proteases was determined on SDS-PAGE copolymerized with 0.1% gelatin by using of rabbit anti synthetic peptide. Finally, the importance of cysteine proteases for the life cycle of some babesia species (babesia bovis and babesia equi) were determined by using of many cysteine proteases inhibitors like E64D, Calpain and Epibestatine *invitro*.



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## CONTENTS

I-Introduction	page (1 - 4)
II-Review of literature	(5 – 25)
III-Materials and Methods	( 26 - 59)
IV-Results	(60 - 65)
V-Discussion	(66 - 75)
VII-Conclusion	(76 - 77)
VI-English Summary	(78 - 79)
VIII-References	(80 - 95)
- Arabic Summary	

## LIST OF TABLES

Table (1): Amino acids in position 2 in different protozoa.

**Table (2)**: Percentage of *invitro* growth inhibition obtained in protease assays.

#### LIST OF FIGURES

- Figure (1): Nucleotide sequences of oligo primers used to acquire full cysteine protease gene sequences from *B. microti*.
- **Figure (2):** The primary structure of cysteine protease and location of primers used to obtain cysteine protease genes from *B. microti*.
- Figure(3): Alignment of predicted amino acid sequences from hemoprotozoan cysteine protease genes.
- Figure (4): Genomic sequences of B. microti of CP1 and CP2.
- Figure (5): Southern blot analysis of *B. microti* CP1.
- Figure (6): Southern blot analysis of B. microti CP2.
- Figure (7): Southern blot analysis of B. microti CP2.
- Figure(8): Detection of the cysteine protease enzyme activity of B.microti.
- **Figure (9):** Inhibition of the Cysteine Protease enzyme activity of *B. microti* by using of E-64.