



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



MONA MAGHRABY



**A comparative study on the antibacterial activity of
natural and biosynthesized nano bacteriocin produced
from isolated lactic acid bacteria**

A thesis Submitted for a **Ph.D.** of Science in Microbiology

Ain Shams University

By

Rasha Mohammed Refay Ibrahim

B. Sc. in Chemistry and Microbiology (2007)

M. Sc. in Microbiology (2011)

South Valley University

Under supervision of

Prof. Dr. Hala Mohammed Ramadan Abu Shady

Professor of Microbiology

Faculty of Science

Ain Shams University

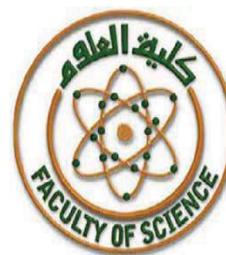
Dr. Mahmoud Ahmed Mailam

**Researcher in Dairy
Food Technology Research Institute
Agricultural Research Center**

Dr. Sara Adel Amer

**Researcher in special Food
Food Technology Research Institute
Agricultural Research Center**

**Microbiology Department,
Faculty of Science,
Ain-Shams University
2020**



Approval Sheet

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Presented by

Rasha Mohammed Refay Ibrahim

B. Sc. in Chemistry and Microbiology (2007)

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S.V.U.

This thesis Submitted for a Ph.D. of Science in Microbiology has been approved by:

Supervisors:

Approval

Prof. Dr. Hala Mohammed Abu Shady:

Professor of Microbiology, Faculty of Science, Ain Shams University.

Dr. Mahmoud Ahmed Mailam :

Researcher in Dairy Department, Food Technology Research Institute, Agricultural Research Center.

Dr. Sara Adel Amer:

Researcher in special Food department, Food Technology Research Institute, Agricultural Research Center.

Advisor committee:

Prof. Dr. Kamal Mohammed Ali Khalil

Professor Emeritus, Genetics and Cytology Department, National Research Center, Giza, Egypt

Prof. Dr. Neimate Ali Hassan

Full time professor, Former head Dairy science department, Faculty of Agriculture Fayoum University

Prof. Dr. Hala Mohammed Abu Shady:

Professor of Microbiology, Faculty of Science, Ain Shams University.

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Rasha Mohammed Refay Ibrahim

Declaration

I hereby declare that this thesis is my own work and effort, as well as, it has been submitted anywhere for my award. Where other sources of help or information have been proposed, they have been acknowledged.

Rasha Mohammed Refay Ibarhim

Guarantee

This thesis is dedicated to:

Allah and Prophet "*Mohammed*" my Allah bless and grant him"

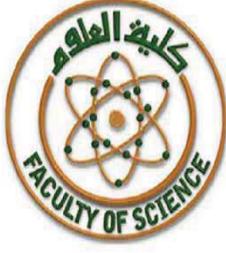
My parents and my brothers. Through my childhood and adult years, they have continuously encouraged me to pursue my interests and dreams, and under their guidance, gave me the freedom to steer opportunities, curiosities, and decisions as I saw fit.

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Rasha Mohammed Refay Ibarhim



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رسالة مقدمة للحصول علي
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ا.د/ هالة محمد رمضان ابو شادي

استاذ الميكروبيولوجي
كلية العلوم- جامعة عين شمس

د/ ساره عادل عامر

باحث بقسم الأغذية الخاصة والتغذية
مركز البحوث الزراعية

د/ محمود احمد ميلم

باحث بقسم الألبان
مركز البحوث الزراعية

قسم الميكروبيولوجي
كلية العلوم
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