بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

MODERN AND MODIFIED TECHNIQUES FOR STAPHYLOCOCCI TOXINS ASSAY

BY

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B.Sc.Agric. (Food Technology) Cairo Univ., (1976)

M.Sc.Agric (Dairying) Cairo Univ., (1986)

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IN

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Faculty of Agriculture

Ain Shams University

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Approval Sheet

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and estimated concentration

Abstract

Zeinab Ibrahim Mohammad Sadek. Modern and modified techniques for staphylococci toxins assay. Unpublished Doctor of Philosophy dissertation, University of Ain Shams, 1996.

Evaluation and standardization of different Staphylococcal enterotoxin assay techniques (Microslide double gel-diffusion, Electroimmunodiffusion, Reversed passive latex agglutination and Enzyme linked immunosorbent assay) were carried out for standard reference enterotoxins A,B and D. Evaluation was achieved by measuring and compairing the method sensitivity and confirmatory responces. The resulting standard curves and assay by these methods were reapplied on laboratory produced enterotoxins for further evaluation.

Evaluation of the applicability of these methods for assay of reference enterotoxins types A,B and D seeded in milk, Domiati and Ras cheeses, were implemented. In addition, assay of enterotoxin A,B and D produced by *S.aureus* different strains inoculated in raw, pasteurized milk and Domiati, Gouda and Ras cheeses was studied using the different methods.

The RPLA and ELISA methods showed the higher sensitiviy than Microslide double gel-diffusion and Electroimmunodiffusion methods. Moreover, ELISA was found as the most sensitive and confirmatory method for detection of staphylococcal enterotoxins

Based on the examination purpose, the most reliable mothods were:

1. ELISA (Sensitivity = 1.0 ng/ml, 90 min. to get a results) was the preferable method for very accurate, very fast, testing trace amount of SETs.
2. RPLA (Sensitivity = 1.25-1.5 ng/ml, 24 h. to get a result). was the preferable method for identifying the type of SETs and estimated concentration.

3. Electroimmunodiffusion (Sensitivity = 125 ng/ml, 48h. to get a result) for identifying SETs with approximate toxin concentration and low costs).
4. Microslide (Sensitivity = 125 ng/ml, 72-96h. to get a result) for identifying SETs with approximate toxin concentration and very low costs).

Key words: *S.aureus*-Enterotoxins-Microslide double gel diffusion-Electroimmunodiffusion - Reversed passive latex agglutination (RPLA)-Enzyme linked immunosorbent assay (ELISA) - Milk-Cheese.

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