

GOIDI American Journal of Innovation, Development and Investment

مجلة دولية محكمة

Issued from USA

Global Universal Innovations Inc.
Development. Investment

Chairman

DR. IBRAHEM ALYASEN

ISSUE No. 12

Fourth Volume

September

www.goidi-usa.org



ADMINISTRATIVE BOARD

DR. IBRAHIM ALYASEEN

PRESIDENT

of The American GOIDI Organization

CHAIRMAN

of The Board of Directors of GOIDI Journal

JORDAN



Dr.Nebras Rada Mohammed

Managing Editor

PHD. Biotechnology/ Molecular genetics/ Genetic engineering/

Protein engineering

Masters / Microbiology/ Molecular Biology

Nationality / Iraqi





GOIDI AMERICAN JOURNAL



براءة اختراع



Preparation of a new culture medium to stimulate increased production of Staphylokinase produced from *Staphylococcus aureus* by using Acridine Orange(AO).

أسم الوسط الزراعي الجديد

Nebras Increase Production Staphylokinase Acridine Orange Agar

Nebras Rada Mohammed

Al-Turath University college

Nationality: Iraqi

Degree: Inventor, researcher and Lecturer Dr. Doctorate

Email: nebrasrada5@gmail.com

Abstract



Preparation of a new culture medium to stimulate increased production of Staphylokinase produced from *Staphylococcus aureus* by Acridine Orange(AO).

The study design of cases are Cross-sectional study that descriptive study by internal comparison of 500 isolates collected from different provenance of human infections including 280(56%) from tonsils , 100(20%) nose, 40(8%) tumors, 17(3.4%) urine, 27(5.4%) skin and 36(7.2%) blood, the isolation and identification achieved by using Vitek2-GP and Genotypic detection PCR to confirmative identification of *S.aureus* isolated from tumors.

The results of growth on the new cultural medium when added Acridine Orange(AO) showed there are growth when added 10 g to new culture medium, the growth of bacteria on new culture medium changed the color of bacteria different from the original of *S.aureus* become very dark and dark green color, also lost its blood hemolysis compared with the original became non hemolysis after growing on the new culture medium, either antibiotics susceptibility test work after growing on the new culture medium that it became sensitive to Vancomycin, Methicillin, Imipenem, Erythromycin and Oxacillin compared with the original was resistant. The growth on new culture medium it lost resistance to antibiotics and lost the production of the hemolytic enzyme(hemolysis).

The test for the production of the Staphylokinase (Thrombolytic enzyme) on the plasma agar and milk agar medium, it was turn off overproduction to Staphylokinase when grown on new culture medium that Acridine Orange(AO) therefore turn off from harmful bacteria into non-harmful bacteris with



overproduction of staphylokinase when added the concentrations 10 gm but no growth when added 20g, 30 g. The bacterium also examined on the new culture medium for having the *Sak* gene that encoding for Staphylokinase (Fibrinolytic enzyme), the results grant positive result for possess *sak* gene that encoded for Staphylokinase.