

Dedication

To my parents

To my sisters, my brothers

To my relatives

To my teachers and supervisor

To my close friends and colleagues

Acknowledgement

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Abstract

This research was conducted to determine the antibacterial effects among the "probiotics isolated from yoghurts against some common bacterial pathogens, After collection, samples were serially diluted in sterile distilled water then 0.2 ml of 10^{-5} - 10^{-7} dilutions from each sample was transferred to sterile plates of De-Mann, Rogosa and Sharpe agar (MRS) medium. All distinct and well isolated colonies were sub-cultured to get pure colonies and examined for various morphological characteristics. Biochemical tests was done to isolates by inoculation in the Bromothymol blue base medium containing different sugar substrate. Characterization of probiotic properties was done by inoculating the isolates in MRS medium containing different concentration of NaCl ,bile salt and PH values after incubation period colonies counted using colony conunter. Antimicrobial sensitivity was done by well diffusion method.. The antimicrobial assay was performed on six types of pathogenic bacteria (*Bacillus spp*, *Shigella*, *Protus*, *Escherichia coli*, *Klebsiella spp*, *Pseudomonas aeruginosa* and *salmonella typhi*). After incubation, the plates were examined for zones of inhibition. Results showed the presence of antibacterial effects among the probiotics that were isolated from yoghurts. The spectrum of their antibacterial effects varied against the selected pathogenic bacteria. Antibacterial effects are one of the most important selection criteria for probiotics, and the verified antibacterial activity of the probiotics supports the development of these functional foods as a key to the improvement of health in the consumers .

الخلاصة

لقد اجريت هذه الدراسة لتحديد وجود تأثيرات النشاط الميكروبي من البروبيوتيك المعزوله من الزبادي ضد بعض مسببات الامراض البكتيرية. بعد جمع العينات خففت بالماء المقطر المعقم. ثم اخذ 0.2 من التخفيفات 10^5 - 10^7 من كل عينه نقلت الي اطباق معقمه من وسط ام ار اس الصلبة . كل المستعمرات الظاهره والمعزوله تم اعاده تزريعها للحصول علي مستعمرات نقيه. تم عمل الاختبارات البايوكيميائية للمعزولات بتزريعها في الوسط الغذائي المحتوي علي دليل البروثيمول الازرق و من السكريات المحلته . تم اختبار خصائص البروبيوتيك بتزريع العزلات النقيه في وسط ام ار اس المحتويه علي تراكيز كلوريد الصوديوم واملاح الصفراء ومختلف قيم من الاس الهيدروجيني بعد فترة التحضين ثم حسبت المستعمرات بجهاز حاسب المستعمرات . تم عمل اختبار الحساسيه بطريقه الانتشار بالحفر ،قياس اثر مضادات البكتريا ضد سته انواع من البكتريا الممرضه(النيابه العصويه، الزائفه الزنجاريه، الاشرشيه القولانيه، الشيقلا، التيفيه السالمونيلا). بعد فترة التحضين تم اختبار الاطباق لقياس مدي تثبيط البكتريا النتائج اظهرت وجود اثر للمضادات البكتريا من البروبيوتيك المعزوله من الزبادي، اختبار المضادات البكتريا واحده من اهم الشروط لاختيار البروبيوتيك. البروبيوتيك تدعم وظائف الاغذيه وهو عبارة عن مفتاح لتحسين حاله الصحيه لعامه المستهلكين.

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