Anti-bacterial activity of agent produced by Streptomyces spp. against clinical bacterial isolates

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Twenty soil samples were collected from Hilla City. Six Streptomyces spp. isolates were identified. These isolates have grey aerial mycelium color and yellow-green substrate mycelium color on yeast malt extract agar. Antibacterial activity of Streptomyces spp. isolates were estimated against S. aureus. Streptomyces spp.4 showed higher activity with (20mm) inhibition zone compared with other isolates and was selected for extraction of antibacterial agent. Streptomyces spp.4 agent showed higher activity against S. aureus with (22mm) inhibition zone, (14mm) against E. coli and lower activity against P. aeruginosa (12mm). FT-IR spectrum for agent had a peak between (3387-3369 cm⁻¹) indicate to presence (N-H) stretching in primary, secondary amine and amide, peak at (2928.04) indicate the presence of (C-H) stretching in aliphatic compound, peak at (1649.19) indicate the presence of (N-H) bend in primary amine compound and a peak at 1026.16 (=C-H) bending in aliphatic compound.

Biography

Samer M Al-Hulu, Microbiology Specialist, has completed his PhD from Babylon University/College of Science. He has published more than 14 papers in microbiology field. He has been under training at Ministry of Health at Laboratory of Babylon Maternity and Children Hospital and currently working at Al-Qasim Green University/College of Food Science.

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