ISOLATION, PURIFICATION AND CHARACTERIZATION OF ACIDOLIN FROM LACTOBACILLUS SP.

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Bacterial cultures of *Bacillus* species are capable of producing bacteriocin acidolin were isolated from local habitats and screened for the production of acidolin on TGE and MRS media against several test organisms viz: *Micrococcus luteus, Staphylococcus aureus, Pseudomonas aeruginosa, Bacillus megaterium* and *E.coli*. Optimization of culture conditions and media composition for acidolin production was done by studying the effect of different nitrogen sources (tryptone, meat extract, yeast extract), carbon sources (maltose, glucose, fructose, sucrose, lactose) pH (3.6, 4.6, 5.6, 6.6), time (6hrs, 12hrs, 16hrs, 24hrs, 48hrs, 72hrs), temperature (4°C, 15°C, 25°C, 37°C, 48°C) on the growth of isolates. The isolated strains were subjected to solid state fermentation on different production media containing cassava meal, sugarcane bagasse and maize grains. The extracted acidolin was purified by anion exchange chromatography, thin layer chromatography, and characterized by SDS-PAGE. Anti microbial activity of purified acidolin is found to be effective against all the test organisms.