SUMMARY

Probiotics mean live organisms that have positive effects on the health of host. The aim of current study was to isolate probiotic bacteria from different non-dairy products. The total 11 samples were collected from different areas and from these samples 10 bacterial strains were isolated. All these were characterized on the basis of morphological, biochemical tests and 16S rRNA ribotyping.

To verify the probiotic potential of these isolates, NaCl tolerance test was performed. It was determined that bacterial isolates i.e., GCU-DAB-M-1, GCU-DAB-M-2, GCU-DAB-M-3, GCU-DAB-M-4, GCU-DAB-M-6, GCU-DAB-M-7 and GCU-DAB-M-10 showed maximum tolerance against 4% NaCl.

Antibiotic sensitivity was determined for the NaCl tolerant isolates. GCU-DAB-M-1 was resistant against amoxicillin, erythromycin, ciprofloxacin and cefixime. GCU-DAB-M-2 was resistant against erythromycin and ciprofloxacin. However, it was not resistant (sensitive) against penicillin, gentamicin and cefixime. GCU-DAB-M-3, GCU-DAB-M-4, GCU-DAB-M-7 and GCU-DAB-M-10 were resistant against all the antibiotics used i.e., amoxicillin, penicillin, erythromycin, gentamicin, ciprofloxacin and cefixime. The GCU-DAB-M-6 showed resistance against amoxicillin, erythromycin, ciprofloxacin and cefixime.

PCR samples were sent to the laboratory for genetic level identification of the 5 selected bacterial isolates i.e., GCU-DAB-M-1, GCU-DAB-M-3, GCU-DAB-M-4, GCU-DAB-M-7 and GCU-DAB-M-10.

These characterized bacteria could be helpful for the human immune system, allergic resistance, and other digestive processes and their role as additive in non-dairy products.