The microbial population of shalgam juice, a fermented vegetable juice prepared primarily from black carrots and other ingredients including salt, bulgur dough and/or red chili powder, was identified by using 16S rRNA-PCR method. DNA was extracted both from cultured colonies and by direct isolation from bulgur dough, (used as the starting culture) and commercially available bottled shalgam juice. Species-specific PCR targeting 16S rRNA gene sequences were
compared with data from NIH by BLAST search program. Sequencing results showed that the predominant species were *Lactobacillus* species including *Lactobacillus casei* ATCC 334, *Lactobacillus casei*, *Lactobacillus casei* subsp. *casei*, *Lactobacillus plantarum plantarum* ATCC 14917, *Lactobacillus plantarum* subsp. *plantarum* ST-III chromosome, *Lactobacillus plantarum* JDM1, *Lactobacillus plantarum* subsp., *Lactobacillus plantarum* subsp. *argentoratensis*,
Lactobacillus acidophilus, Lactobacillus brevis ATCC 367, Lactobacillus brevis, Lactobacillus helveticus, Lactobacillus helveticus DSM 20075, Lactobacillus helveticus DPC 4571, Lactobacillus paracasei subsp. paracasei, Lactobacillus paracasei subsp. tolerans, Lactobacillus parabrevis, Lactobacillus reuteri, Lactobacillus delbrueckii subsp. lactis, Lactobacillus delbrueckii subsp. delbrueckii, Lactobacillus delbrueckii subsp. indicus, Lactobacillus
gasseri, Lactobacillus sharpeae. The results of this study suggested that shalgam juice might have potential source for beneficial LAB.