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PCR detection of bacteriocin genes from lactic acid bacteria isolated from milk

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The bacteriocin structural gene in six bacteriocinogenic lactic acid bacteria (LAB) namely *Lactobacillus acidophilus, Lactobacillus casei, Streptococcus thermophilus, Lactococcus lactis, Lactobacillus fermentum* and *Lactobacillus brevis* isolated from raw and processed milk samples was studied. Four primers were designed to amplify bacteriocin genes of bacteriocin producing LAB. The primer sets were able to amplify the bacteriocin gene from all the six LAB isolates. Primer A(IcIA) amplified bacteriocin gene of *L. casei, L. lactis* and *L. fermentum*, Primer B (acdT) amplified bacteriocin genes of *L. acidophilus, L. casei, L. lactis* and *L. brevis*, Primer C (acdA) amplified bacteriocin genes of L. acidophilus, S. thermophilus and L. brevis, while Primer D (Iaf) amplified bacteriocin genes of *L. casei* and *L. brevis*. The bacteriocin genes of the organisms were between the ranges of 210-300 bp, which was determined based on the molecular weight marker in gel system. Hybridization analysis confirms the amplicon of this LAB are bacteriocins.

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