

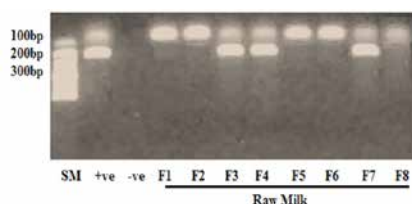
MOLECULAR BIOLOGY, NUCLEIC ACIDS &
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Development of a PCR-based rapid method for the detection of *L. monocytogenes* in food samples after enrichment steps**Shumaila Naz Malik**

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Listeria monocytogenes is a Gram positive, facultative, and opportunistic pathogen causing food borne infections in humans worldwide. It causes major problems in immunocompromised individuals such as pregnant women, neonate and elderly. The old conventional methods for the identification of *L. monocytogenes* in foods are laborious, and require almost 3-5 days giving ready results. To overcome this problem we have demonstrated a fast, non-conventional, simple, sensitive and rapid Polymerase Chain Reaction (PCR)-based method by using the primers for *prfA* gene sequence for the detection of *Listeria* in food samples. Experiments were to observe the sensitivity of this primer in number of combinations. Optimization studies were conducted using milk samples spiked with different inoculum size and for different time intervals. It was observed that this method efficiently detects minimum contamination of *Listeria* as tested with spiked samples in around 14 hours. Comparable results were observed when this method was applied to detect *Listeria* in naturally contaminated samples along with conventional methods. The proposed method can be employed to detect Optimization studies in parallel to standard conventional methods.

**Biography**

Shumaila Naz Malik has completed her MS successfully in 2015. After that she started working as Research Scholar at Jinnah University for Women, Karachi, Pakistan. She has strong academic and research background in the areas of Food Microbiology. Particularly, she has worked on *Listeria monocytogenes*. Her MS thesis was on "Rapid detection of *Listeria monocytogenese* in food sample after enrichment step". She worked as a Lecturer in the Department of Microbiology from 2011 till 2013. She has attended and organized several workshops, research posters exhibitions, conferences and seminars for the students and faculty, while in Pakistan.

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