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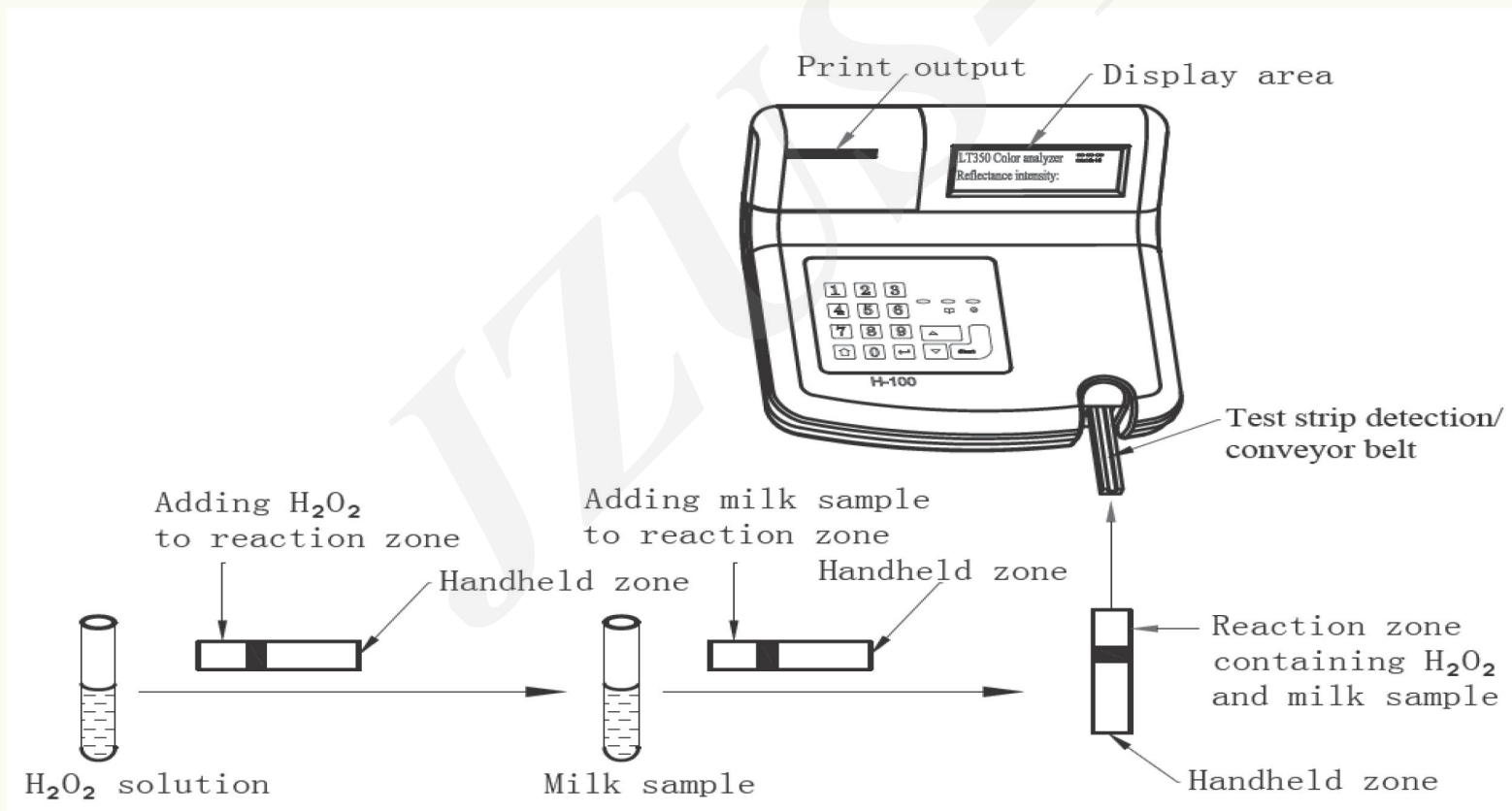
Development of a test strip for rapid detection of lactoperoxidase in raw milk



Key words: Lactoperoxidase, Test strip,
Rapid detection, Raw milk, TMB

Innovation points

- ◆ **The first time to use test strip for lactoperoxidase detection.**
- ◆ **Qualitative LP analysis was achieved within a few seconds by observing a color change of the test strip. Quantitative LP analysis could be accomplished using the test strip within 3 min by a color analyzer.**



Research content

Part 1-Optimization of preparation of the test strip for LP detection



Part 2-Evaluation of LP detection by the test strip

pH of the buffer solution

TMB concentration

H₂O₂ concentration

Surfactant selection

The calibration curve

Reproducibility

The lowest LP content detected

Accuracy



Important results

- ◆ **Fig. 6** -Typical standard curves for LP assay with the test strip
- ◆ **Table 1** -Reproducibility of LP detection in five milk samples by test strip method
- ◆ **Fig. 7** -The lowest LP concentration in milk samples by the test strip detection
- ◆ **Fig. 8** -Correlation between the test strip method for quantifying lactoperoxidase and the TMB method

