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Title (English)

Stability of variable number of tandem repeat (VNTR) markers in *Francisella tularensis*

Title (Swedish)

Abstract

The intracellular bacterium *Francisella tularensis* causes the zoonosis tularemia. It is of medical as well as epidemiological interest that a bacterial isolate can be identified on strain level. *F. tularensis* strains can be discriminated through variable number of tandem repeat (VNTR) analysis. The aim of this study was to investigate the stability of a selection of VNTRs in *F. tularensis* live vaccine strain (LVS). Stress may affect the expression of virulence factors and bacteria were therefore subjected to; low pH, heat stress, nutrient limitation or growth in amoeba. The VNTR analysis on DNA from these bacteria showed no changes in repeat copy numbers of the selected markers. Variation was not triggered by these stress conditions. Thus, the identification of strains based on VNTRs seems to be a reliable method.

Keywords

VNTR, *Francisella tularensis*, genotyping, slipped-strand mispairing, amoeba

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