

## Abstract

Salmonella Typhimurium causes self-limiting gastroenteritis in humans and typhoid like condition in mice. *S. Typhimurium* actively invade intestinal epithelial and macrophage cells and replicate inside the host cell within a modified phagosome known as Salmonella containing vacuole (SCV). Invasion and replication is regulated by two different type-three secretion system (T3SS) that translocate effector proteins, encoded by both Salmonella pathogenicity island-1 (SPI-1) and SPI-2, into the host cell cytoplasm. T3SS-1 regulates invasion and T3SS-2 regulates intracellular replication. Salmonella plasmid virulence factor D (SpvD) is an effector protein encoded by both SPI-1 and SPI-1. In this report, we have found that  $\Delta$ SpvD shows replication defects only in macrophage cell but not in epithelial cell lines. From our conclusion we hypothesize that  $\Delta$ SpvD is a macrophage sensitive mutant.