

# Virulence of Pigmented *Serratia marcescens* Strain SM6 and its Nalidixic Acid-Resistant Derivative in White Outbred Mice

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## Abstract

© 2016, Springer Science+Business Media New York. Human opportunistic pathogen *Serratia marcescens* is a bacterium with broad host range representing a growing problem for public health. Little is known about virulence factors used by *S. marcescens* to colonize the host. We used white outbred mice to study virulence of *S. marcescens* wild type strain SM6 and its nalidixic acid-resistant derivative during intraperitoneal infection. We showed that both strains were lethal for mice at 107–108 CFU and death occurred within 24–48 h post infection. No mortality was noticed at 106 CFU. Bacteria were isolated from hearts, lungs, kidneys, livers, spleens, intestines, and blood of infected animals. Resistance to nalidixic acid did not affect virulence of *S. marcescens*. Thus, this strain can be used in the future virulence studies to simplify tracking and recovery of *S. marcescens* from infected tissue.

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## Keywords

*Serratia marcescens*, Virulence, White outbred mice