

# Antibacterial and antitumorigenic properties of microcin E492, a poreforming bacteriocin

Lagos,

Tello,

Mercado,

García,

Monasterio,

Microcins are a family of low-molecular weight bacteriocins produced and secreted by Gram-negative bacteria. This review is focused on microcin E492, a pore-forming bacteriocin produced by *Klebsiella pneumoniae* RYC492 that exerts its antibacterial action on related strains. The steps necessary for the production of active microcin E492 involve post-translational modification with a catechol-type siderophore at the C-terminal and proteolytic processing during export to the extracellular space. This bacteriocin has a modular structure, with a toxic domain at the N-terminal and an uptake domain at the C-terminal of the mature protein. The mechanism by which the C-terminal of microcin E492 is recognized by catechol siderophore receptors is called the "Trojan horse" strategy, because the C-terminal structure mimics essential bacterial elements, which are recognized by the respective receptors and translocated across the outer membrane to exert antibacterial action. The C-terminal uptake