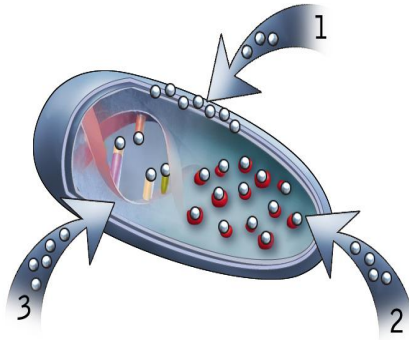


Action of Silver

Silver ions interact with a wide range of molecular processes within microorganisms resulting in a range of effects from inhibition of growth and loss of infectivity, to cell death, thereby accounting for the high efficacy of **BioMaster** as an antimicrobial agent.



(1) Silver ions may bind non-specifically to cell surfaces, causing some disruption to the cellular membrane function and allowing the silver ions to penetrate the microbe structure.

(2) Silver ions are highly reactive and readily bind to electron donor groups, with prime targets being the thiol groups (-SH) which are commonly found in enzymes within the microbe.

This causes the enzymes to be denatured thus effectively incapacitating the energy source of the cell. As a result the cell cannot maintain osmotic pressure, vital substances leak out of the cell and the microbe will quickly die.

(3) Silver ions react with the base pairs of DNA thus preventing DNA replication.

There is evidence dating back to the 1920's showing that silver ions possess antiviral properties. If you would like to discuss the antiviral claims that can be made using **BioMaster** products please contact our technical team.