

Aronovitch, J., D. Godinger, and G. Czapski. 1991. Bactericidal activity of catecholamine copper complexes. *Free Radic.Res.Commun.* 12-13 Pt 2:479-488.

Abstract: Washed or growing *E. coli* cells are killed by epinephrine, norepinephrine or dopamine in the presence of non lethal concentrations of Cu(II). Killing is enhanced by anoxia and by sublethal concentrations of H₂O₂. The rate of killing is proportional to the rate of catecholamine oxidation. The copper epinephrine complex binds to *E. coli* cells, induces membrane damage and depletion of the cellular ATP pool. The cells may be partially protected by SOD or catalase but not by OH radical scavengers. Addition of H₂O₂ to cells which were sensitized by preincubation with the epinephrine-copper complex, causes rapid killing and DNA degradation. Sensitized cells are not protected by BSA