

# Iron(II)-mimosine Catalyzed Cleavage of DNA

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Supercoiled plasmid DNA was treated *in vitro* with  $H_2O_2$ , DTT and either Fe (II), Fe (II)-EDTA or Fe (II)-mimosine. The rate of DNA break formation was followed by the conversion of the supercoiled form into relaxed-circular and linear forms. In the concentration interval of 0-4  $\mu M$  Fe (II), Fe (II)-EDTA slowed-down the formation of DNA breaks, while Fe (II)-mimosine enhanced the rate of break formation up to several times. A conclusion is drawn that this enhancement is due to the increased affinity of the Fe (II)-mimosine complex to DNA.