

Mutagenic in vitro Activity and Genotoxic Effect of Zygophyllum Cornutum Methanolic Extract

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Abstract : The methanolic extract of Zygophyllum cornutum coss, an Algerian medicinal plant, was screened to the presence of mutagenic activity and genotoxic effect using the Ames test (Salmonella/microsome) and the micronucleus assay respectively. Positive results were obtained with both tests. The Ames test showed mutagenic activity in the presence of microsomal activation, while negative result was observed without microsomal activation. In the micronucleus test, two parameters were evaluated: the frequency of the micronucleus that increased in a dose dependent way and the proliferation index that decreased according to the micronucleus frequency. Even that further studies must be carried out, the mutagenic activity and the genotoxic effect of Zygophyllum cornutum should be taken in consideration when used as therapeutic plant.

Keywords : ames test, micronucleus test, mutagenic activity, genotoxicity, Zygophyllum cornutum

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