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Research Abstract

In Vitro Callus Induction from Root Explants of *Ibervillea sonorae*

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Abstract: The extract obtained from the root of *Ibervillea sonorae* is used for the treatment of diabetes among other uses, by its hypoglycemic effect. *In vitro* culture could ensure a constant supply its secondary metabolites with therapeutic properties. In this work was established the callus culture from roots in B5 and MS medium, supplemented with sucrose, vitamins, ascorbic acid, Indole-3-acetic acid (IAA), Naphthalene-1-acetic acid (NAA) and 6-Benzylaminopurine (BAP). Two groups were worked, the first group was maintained in dark and the second in a 16 h photoperiod, both groups were incubated at 22 °C during 15 days. Callus formation was observed around the fifth day and were yellowish to pea-green color. The callus induction was 75 % with the B5 medium and 25% with the MS medium, in a 16 h photoperiod. In the dark, only was achieved a 25 % of callus induction with the MS medium. Comparing the culture conditions, it was determined that a 16 h photoperiod stimulated cell proliferation and the B5 medium more improved the callus growth than the MS medium. B5 medium increased the weight of callus four times and approximately two to three times with MS medium in the first 15 days.

Keywords: *Ibervillea sonorae*, hypoglycemic, diabetes, callus formation

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