

PHYTOCHEMICAL SCREENING OF *IN VITRO* AND *IN VIVO* GROWN PLANTLETS OF *BACOPA MONNIERI* L

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ABSTRACT

Different types of extracts of *in vivo* and *in vitro* grown plantlets of *Bacopa monnieri* L. were qualitatively evaluated to identify the chemical constituents like saponins, alkaloids, resins, Quinones, tannins, phenols, flavonoids, coumarins, proteins and amino acids. Wild and fresh plantlets were collected and different parts of these plantlets were cultured on MS (Murashige and Skoog) medium supplemented with BAP (benzyle amino purine) + AdS (adenine sulphate)+citric acid to get micropropagated plantlets. One and half months old micropropagated plantlets as well as wild or field grown plantlets were taken for tap water washing, air drying, grinding and homogenizing to get fine powder. Cold extraction or solvent extraction methodology was followed to prepare extracts from plantlets. During current investigation methanol, ethanol and water were used as nonpolar and polar solvents. As chemical extraction, mainly depends on the type of solvents with varying polarity, it was investigated that saponins were highly present in water extract, 30% methanol and 30% ethanol extract, while saponins were not found in absolute methanol and ethanol. Standard procedures were used to identify the different constituents present in both the samples.

KEYWORDS: Ethanol, Extract, Methanol, Micropropagation, Reagents, Saponins, Water