Production of Cycloartane Triterpene Glycosides in Shoot Cultures of Astragalus sieberi DC

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Abstract:

Shoot tips of the germinated seeds of Astragalus sieberi DC. were cultured on MS-medium supplemented with 0.1 mg L-1 each of naphthalene acetic acid (NAA) and benzyl adenine (BA) for establishment of shoot cultures. The effect of different concentrations of growth regulators on saponin content was studied and optimized. Saponin content was monitored by HPLC analysis. The most appropriate growth regulator with which to produce the highest content of saponins in shoot cultures was 0.5 mg L-1 each of NAA and BA. The isolated cycloastragenol-3-O-glucoside was identified by spectral analysis and compared with an authentic sample.

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