Dicentrine Production from a Hairy Roots Culture of *Stephania suberosa*

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A hairy roots culture of *Stephania suberosa* was established using *Agrobacterium rhizogenes* ATCC15834. The production of dicentrine was found to be (8.92 ∂ 0.07) mg/g dry wt on day 35 of culture. Effects of sucrose content, tyrosine, and medium strength on growth and dicentrine production of *S. suberosa* were investigated. 6% (w/v) sucrose was an optimum content for the growth and dicentrine accumulation in *S. suberosa* hairy roots. The utilization of a precursor from tyrosine feeding enhanced the dicentrine production. The medium with 1.0 mM of tyrosine had the highest effect on dicentrine accumulation in hairy roots at day 40 of culture [(14.73 ∂ 0.47) mg/g dry wt]. In addition, ¼ Murashige and Skoog medium was suitable for biomass and dicentrine production in hairy roots. This culture system has a potential to produce dicentrine from hairy roots of *S. suberosa*.

Key words: Dicentrine, Hairy Roots, *Stephania suberosa*