SAPONIN ACCUMULATION IN CELL SUSPENSION CULTURE OF *Ehretia asperula* Zollinger et Moritzi

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Summary

This study was intended to investigate the saponin accumulation in the cell suspension culture of *Ehretia asperula* Zolliger et Moritzi. Soft and friable calli were initiated and grew well on MS (1962) media added with coconut water (10%), sucrose (30 g/L), BA (0.1 mg/L) and 2.4-D (2-2.5 mg/L), with callus induction rate of 93.52% and 92.59%; callus diameter 18.33 and 17.00 mm and growth index 3.44 and 3.38, respectively, after 24 days of culture. The calli were cultured on MS (1962) medium supplemented with BA 0.1 mg/L and 2.4 D 2.0 mg/L were chosen to initiate the cell culture. The cell suspension proliferated best at 140 rpm of agitation (growth index 7.81) and 40% of the initial cell to medium ratio (growth index 7.96). The highest saponin content (71.1 µg/g) was detected with the use of methyl jasmonate (10 mg/L) on the culture medium.

Keywords*: Cell suspension, callus, saponin, Ehretia asperula, 2,4-D*.