

DETECTION OF ANTHOCYANIDIN FROM CELL SUSPENSION CULTURE OF *MELASTOMA MALABATHRICUM*

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Abstract: Cell suspension culture of *Melastoma malabathricum* was established from friable leaf callus cultured in liquid Murashige and Skoog (1962) medium supplemented with 0.25 mg/L BA (*N*⁶-benzylaminopurine) and 0.5 mg/L NAA (1-naphthalene-acetic acid). The anthocyanin in the cells was extracted and acid hydrolysed. *R_f* values in BAW (4:1:5), forestal and HCl-formic acid were determined on Whatman No. 3 paper and compared to the extract from petals of *Hibiscus rosa-sinensis* as the marker and the extracts from parts of the mother plant including the petals, fruits, leaves and petioles. Wavelength absorptions of the samples in MeOH-HCl and in the same solvent one hour after the addition of 5% aluminium chloride were determined. The anthocyanidin in the cell samples was found to be cyanidin, the one similar to that of the petals of *Hibiscus*, and the fruits, leaves and petioles of *Melastoma* mother plant. On the other hand, the anthocyanidin found in the petals was malvidin.

Keywords: anthocyanin, cell suspension culture, *Melastoma malabathricum*

Abstrak: Kultur ampaiian sel *Melastoma malabathricum* di dalam medium cecair Murashige dan Skoog (1962) yang mengandungi 0.25 mg/L BA (*N*⁶-benzilaminopurina) dan 0.5 mg/L NAA (1-naftalena asid asetik) telah diperoleh daripada kalus daun yang rapuh. Antosianin di dalam sel telah diekstrak dan dihidrolisis secara berasid. Nilai *R_f* di dalam BAW (4:1:5), forestal and HCl-asid formik telah ditentukan dengan menggunakan kertas Whatman No. 3 dan dibanding dengan ekstrak daripada petal *Hibiscus rosa-sinensis* sebagai rujukan serta ekstrak daripada bahagian-bahagian pokok induk seperti petal, buah, daun dan petiol. Penyerapan jarak gelombang sampel di dalam MeOH-HCl dan satu jam selepas penambahan 5% aluminium klorida telah ditentukan. Antosianidin di dalam sampel sel didapati adalah cyanidin, yang juga sama dengan antosianidin daripada petal *Hibiscus*, buah, daun dan petiol pokok induk. Antisianidin daripada petal pula adalah malvidin.

Kata kunci: antosianin, kultur ampaiian sel, *Melastoma malabathricum*