

PURIFICATION AND CHARACTERIZATION OF ANTI-HIV-1 PROTEIN FROM *CANNA INDICA* L. LEAVES

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Abstract. A novel 10 kDa protein with anti-HIV-1 reverse transcriptase (RT) inhibitory activity was isolated from leaves of *Canna indica* L. using a combination of native-PAGE and ammonium sulfate precipitation. HIV-1 and RT inhibitory activity was measured using a syncytium forming $\Delta^{Tat/Rev}$ MC99 virus in Tat/Rev transfected 1A2 cell line and ELISA technique, respectively. Edman N-terminal and internal amino acid sequence (using LC-MS-MS) determination revealed the 10 kDa *Canna indica* L. leaf protein as a putative plastocyanin. This is the first report of a plant plastocyanin with HIV-1 RT inhibitory property.

Keywords: *Canna indica* L., anti-HIV-1 reverse transcriptase inhibitory activity, syncytium reduction assay, plastocyanin

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