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Relationship between Radical Intensity and Biological Activity of Cacao Husk Extracts

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Abstract: The relationship between radical intensity and biological activity of cacao husk extracts was investigated. Electron spin resonance (ESR) spectroscopy demonstrated that the radical intensity of hexane, acetone, methanol and 70% methanol extracts increased with water-solubility. Several fractions of these husk extracts, separated by different column chromatographies, significantly inhibited the cytopathic effect of human immunodeficiency virus (HIV) infection in parallel with their radical intensity. However, their cytotoxic activity against human leukemic and carcinoma cell lines is not always correlated with their radical intensity. Water- soluble and lipophilic compounds might induce cytotoxic activity by different mechanisms.

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