

**ANALISIS KANDUNGAN COENZYME Q_{10} PADA DAGING BUAH
SIWALAN (*Borassus flabellifer* Linn.) DENGAN METODE
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY**

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Coenzyme Q₁₀ (CoQ₁₀) or *ubiquinone*, is one of the most essential coenzymes in our body. CoQ₁₀ is located on the inner membrane of mitochondria which has a role to produce energy in the form of adenosine triphosphate (ATP). CoQ₁₀ is oil soluble substances that one of them is being synthesized by plant. Siwalan or Lontar pulp (*Borassus flabellifer* Linn.) is one of palm families that predicted containing a large amount of plant allegedly rich of oil soluble component content, that is CoQ₁₀.

The objective of this research was to optimize the extraction process and analysis condition of CoQ₁₀ from Siwalan pulp (*Borassus flabellifer* Linn.) by using HPLC method. A 100% of methanol was used as the mobile phase, VP-ODS 250L x 4,6 μ m was used as the column, UV light at $\lambda = 275$ nm was used as the detector, and isocratic elution was conducted at mobile phase rate = 2 mL/minute and temperature at 30°C.

Based on the method that was used, the retention time of CoQ₁₀ was found to be 9,853 minute and this result was fulfilling the validity parameter requirement. Suitability system parameter was generating a coefficient (CV) as much as 0,34%. The standard calibration curve was found to be $y = 3,9263x - 914,42$ with correlation coefficient (r) equals to 0,997. The quantifying limit for analysis was found to be 15,20 ng/mL with accuracy and precision (CV) less than 2%. The average concentration of *n*-hexan extract of CoQ₁₀ from Siwalan pulp with dry extraction was found to be 21,67% and wet extraction was found to be 7,14%.

Keywords: HPLC, *Coenzyme Q₁₀*, Siwalan (*Borassus flabellifer* Linn.)