

ABSTRACT**METHOD DEVELOPMENT FOR ANALYSIS OF STEVIOL GLYCOSIDES BY HPLC-ELSD TO SUPPORT QUALITY CONTROL OF STEVIA PRODUCTS***Supriyadi*

Stevia rebaudiana Bertoni is now being considered as a possible sucrose substitute due to its pleasant organoleptic properties and associated health benefits. The Evaporative Light Scattering Detector (ELSD) is a valuable HPLC detector for detection of non-UV absorbing compounds, such as stevioside, rebaudioside A, rebaudioside C and dulcoside A. The objective of the present study was to develop and validate a selective HPLC-ELSD method for determination of steviol glycosides contained in *Stevia rebaudiana*, mainly stevioside, rebaudioside A, rebaudioside C, and dulcoside A. The chromatographic separation of stevioside, rebaudioside A, rebaudioside C, and dulcoside A was achieved using Phenomenex Luna column 250 mm x 4.6 mm i.d. in isocratic system mode with a mobile phase of acetonitrile-water (35 : 65). The temperature of nebulization and evaporation of the ELSD detector was set at 40°C and 50°C, respectively.

The good separation of stevioside, rebaudioside A, rebaudioside C, and dulcoside A was obtained, yielding the resolution of all the analytes more than 1.5. All the validation parameters like specificity, linearity, range, accuracy and precision met the acceptance criteria according to ICH guidelines.

The proposed HPLC-ELSD method is simple and sensitive for the simultaneous detection and determination of stevioside, rebaudioside A, rebaudioside C and dulcoside A contained in *Stevia rebaudiana*. The method was successfully applied for the determination of the samples product of *Stevia rebaudiana*.

Key words: Stevioside, Rebaudioside A, Rebaudioside C, Dulcoside A, HPLC-ELSD.