Research Journal of Pharmacognosy (RJP) 4(Supplement), 2017: 126

First Iranian Pharmacognosy Congress; Nov 29-30, 2017

Abstract

Extraction and measurement of homotaurine in algae

F. Gheytasi, M. Gholami*

Department of Chemistry, Golestan University, Gorgan, Iran.

Background and objectives: According to recent studies, homotaurine may be an Alzheimer's active ingredient. The goal of this project was to extract and detect homotaurine in algae collected from Persian Gulf shores. **Methods:** Extraction was done with etanol 80% for 30 min in ambient temperature. The HPLC elution solvent required a mixture of two solvents. Solvent A was ammonium acetate buffer and solvent B was methanol. The solvents were filtered and degassed before use. Isocratic elution was carried out at a flow rate of 1 mL/min. The chromatographic analysis was conducted at ambient temperature. **Results:** The results of the measurements showed that some algae samples lacked measurable amounts of homotaurine. In this analysis ammonium acetate buffer (pH 6.5) and mixture of methanol and acetonitrile (50:50 v/v) were applied as the mobile phase in the gradient mode. The OPA derivative was detected at 336 nm of excitation and emission wavelengths. The peaks of homotaurine were appeared at retention time of 12 min, respectively. **Conclusion:** The present method can be well applied for measurement of homotaurin in algae for anti-alzheimer tests in the future.

Keywords: derivatization, homotaurine, HPLC method, revers-phase chromatography

Available at: http://rjpharmacognosy.ir
*Corresponding author: mgholami.d@gmail.com, Tel: +98911-2177659