Manuscript ID: 00001-60807

International Journal of Applied Pharmaceutics

Volume 13, Issue 4, July-August 2021, Pages 111-116, Page Count - 6



Source ID: 00000538

## HPLC ANALYSIS OF AMINO ACIDS CONTENT IN CRAMBE CORDIFOLIA AND CRAMBE KOKTEBELICA LEAVES

Liudmyla Slobodianiuk <sup>(1)</sup> Liliia Budniak <sup>(2)</sup> Svitlana Marchyshyn <sup>(3)</sup> Olha Skrynchuk <sup>(4)</sup> Victoriia Kudria <sup>(5)</sup>

- (1) Department of Pharmacognosy and Medical Botany, Ivan Horbachevsky Ternopil National Medical University, Ternopil, Ukraine.
- (2) Department of Pharmacy Management, Economics and Technology, Ivan Horbachevsky Ternopil National Medical University, Ternopil, Ukraine.
- (3) Department of Pharmacognosy and Medical Botany, Ivan Horbachevsky Ternopil National Medical University, Ternopil, Ukraine.
- (4) Department of Pharmacy, Bukovinian State Medical University, Chernivtsi, Chernivets`ka oblast, Ukraine.
- (5) Department of Pharmacy, National Pirogov Memorial Medical University, Vinnytsya, Vinnytsya, Ukraine.

## **Abstract**

**Objective**: The aim of our study was to establish the content of some primary metabolites, such as amino acids in Crambe cordifolia and Crambe koktebelica. The lack of experimental data induced us to determine these compounds.

**Methods**: Crambe cordifolia and Crambe koktebelica leaves were selected as the objects of the study. The amino acids in the raw materials were determined by the HPLC method.

Results: The results of the research revealed that the leaves of Crambe cordifolia and Crambe koktebelica contain fifteen and sixteen free amino acids respectively. Among the free amino acids L-histidine was presented in Crambe cordifolia leaves in the greatest amount, its content was 12.19 µg/mg. The content of free L-arginine, L-valine, L-phenylalanine, L-isoleucine was the greatest in Crambe koktebelica leaves, it was 2.23 µg/mg, 2.04 µg/mg, 1.74 µg/mg, 1.50 µg/mg respectively. The content of bound L-glutamic acid, Glycine, L-arginine, L-leucine was the highest in Crambe cordifolia and Crambe koktebelica leaves.

**Conclusion**: The results of the study showed that Crambe cordifolia and Crambe koktebelica can be considered as a source of highly digestible amino acids that can be used to treat some diseases.

## **Author Keywords**

Crambe cordifolia, Crambe koktebelica, Amino acids, HPLC, Leaves

**ISSN Print:** 

Source Type: Journals

Publication Language: English

**Abbreviated Journal Title:** Int J App Pharm

Publisher Name: Innovare Academic Sciences Pvt Ltd

Major Subject: Health Sciences

Subject area: Pharmacy

**ISSN Online:** 0975-7058

**Document Type:** Journal Article

**DOI:** https://dx.doi.org/10.22159/ijap.2021v13i4.41265

**Access Type:** Open Access **Resource Licence:** CC BY-NC

**Subject Area classification:** Health Professions

**Source: SCOPEDATABASE** 

Scope Database www.sdbindex.com Email:info@sdbindex.com