

In folk medicine, plants of the genus Pisum L. (pea) are used as diuretic and anti-inflammatory agents [1]. From the epigeal part of Pisum sativum L. we have obtained a complex of biologically active substances possessing pronounced pharmacological action.

A chemical study of this complex permitted the detection of 18 substances of phenolic nature: flavonoids, phenocarboxylic acids, and hydrocoumarins [2]. The presence of 16 amino acids was established by paper and thin-layer chromatography and their amount were determined chromatophotocolorimetrically [3, 4]:

Amino acid	Amount, %
Alanine	0.55
Glycine	0.55
Valine	0.51
Leucine	0.38
Isoleucine	0.21
Serine	0.40
Threonine	0.59
Cysteine	0.13
Methionine	0.16
Phenylalanine	0.21
Tyrosine	tr.
Aspartic acid	0.52
Glutamic acid	0.60
Arginine	0.52
Lysine	0.25
Histamine	0.13

By chromatographing the total complex on a column of polyamide we obtained a crystalline substance with the composition $C_4H_6O_3N_4$, mp 236-239°C. On the basis of qualitative reactions, IR spectrum, and the absence of a depression of a melting point in admixture with an authentic sample, the compound was identified as allantoin (5-ureidoimidazolidine-2,4-dione) [5].

This is the first time that allantoin has been detected in the genus Pisum L.

LITERATURE CITED

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