A new phenylethanoid triglycoside in Veronica beccabunga L

Besides the expected iridoid glucosides aucubin and catalpol as well as three known esters of the latter, Veronica beccabunga (brooklime) was shown to contain five carboxylated iridoid glucosides, namely gardoside, mussaenosidic acid, 8-epiloganic acid, arborescosidic acid and alpinoside. In addition to these compounds, the plant contained salidroside and a previously unknown caffeoyl phenylethanoid glycoside (CPG) which we have named chionoside J. The structure was elucidated mainly by 1D and 2D NMR spectroscopy to be 2"-(beta-glucopyranosyl)-plantamajoside. The distribution of plantamajoside and its derivatives as well as that of carbocyclic iridoids with an 8,9-double bond is briefly discussed, and it is noted that such compounds are mainly confined to the tribe Veroniceae of the Plantaginaceae.

General information
Publication status: Published
Organisations: Organic Chemistry, Department of Chemistry, Bielefeld University
Contributors: Jensen, S. R., Opitz, S. E. W., Gotfredsen, C. H.
Pages: 193-197
Publication date: 2011
Peer-reviewed: Yes

Publication information
Journal: Biochemical Systematics and Ecology
Volume: 39
Issue number: 3
ISSN (Print): 0305-1978
Ratings:
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 1.11 SJR 0.436 SNIP 0.809
Web of Science (2011): Impact factor 0.931
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
Original language: English
Keywords: Iridoid glucoside, Mannitol, Plantaginaceae, Phenylethanoid glycoside, Veronica beccabunga, Chionoside J
Electronic versions:
beccabunga_paper.pdf
DOIs:
10.1016/j.bse.2011.02.008
Source: orbit
Source ID: 276509
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review