

アロエ属植物に含まれるフェノール 成分のHPLC分析

岡村信幸, 浅井雅美, 日根紀子, 八木 晟

J. Chromatography A, 746, 225-231 (1996)

High-Performance Liquid Chromatographic determination of Phenolic Compounds in *Aloe Species*

Nobuyuki Okamura, Masami Asai, Noriko Hine,
and Akira Yagi

ABSTRACT A procedure has been developed for determination of aloesin, 2'-*O*-feruloylaloesin, aloeresin A, barbaloin, isobarbaloin, aloenin, aloe-emodin, 8-*C*-glucosyl-7-*O*-methyl-(*S*)-aloesol, isoaloeresin D and aloeresin E which are phenolic constituents of aloe. Aloe or commercial aloin was extracted with methanol multiple times, centrifuged and then filtered. Filtrates were analyzed by a reversed-phase high-performance liquid chromatography employing UV-Vis detection (290 nm). The samples were separated with a Wakosil-II 5C18 HG column by linear gradient elution using water-acetonitrile (88:12 to 54:46) as the mobile phase at a flow-rate of 1.0 ml/min. The detection limits of these compounds were 0.04-0.35 ng per injection (5 μ l) and linearity of response existed. Very satisfactory and reproducible results were obtained within 38 min for simultaneous determination of these compounds. This method was applied to determine these compounds in *Aloe barbadensis* Miller, *A. arborescens* Miller var. *natalensis* Berger, *A. vera* var. *chinensis* Berger, *A. marlothii* Berger and *A. striata* Haw. Two commercial aloins were also analyzed.

抄録 アロエ属植物に含まれる10種類のフェノール成分の同時定量法を確立した。アロエまたは市販のアロインをメタノール抽出し、遠心分離後のろ液を290 nmの検出波長を用い逆相HPLCで分析した。カラムはWakosil-II 5C18 HGを用い、水-

アセトニトリルの直線的な濃度勾配により、38分以内に10種類のフェノール成分を再現性良く同時定量できた。検出限界は注入当たり0.04~0.35 ngであった。そこでこの方法を利用して、*Aloe barbadensis* Miller, *A. arborescens* Miller var. *natalensis* Berger, *A. vera* var. *chinensis* Berger, *A. marlothii* Berger, *A. striata* Haw ならびに市販のアロインについて、これらフェノール成分の定量を行った。