

令和5年度「日本薬局方の試験法等に関する研究」研究報告 TLC用標準物質を指向した柑橘類フラボン配糖体の精製*2

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Citrus Flavone Glycosides as Alternative Reference Standards for TLC Analysis*2

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Summary

Citrus fruits are widely used as crude drugs around the world and are included in various national pharmacopoeias. In tests for these crude drugs, flavanone glycosides such as naringin and hesperidin are used as reference standards; however, hesperidin, in particular, has low solubility, making it suboptimal as a standard for quantification. We considered that flavone (including its 3-ol analog) glycosides could serve as alternative standard substances. In this study, we developed efficient extraction methods for citrus flavonoids and elucidated their structures by means of various NMR analyses. Nine of the isolates were identified as polymethoxylated flavones. Among them, natsudaidain 3-*O*- β -D- (3-hydroxy-3-methylglutaroyl] glucoside was concluded to be suitable as a new reference standard.

Key words

Citrus Unshiu Peel, Polymethoxylated flavones, Natsudaidain, Nobiletin, Reference standard