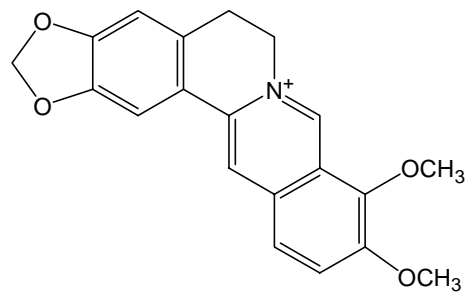


オウバク中ベルベリン

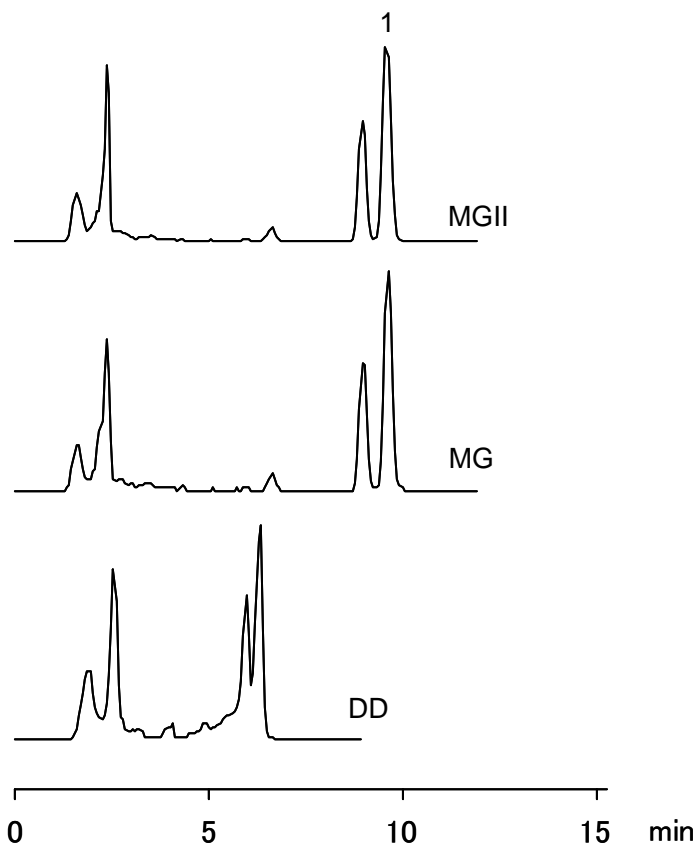
Berberine

オウバクは日本薬局方収載の生薬です。これは主に止瀉薬，健胃薬として用いられ，その他漢方や医薬品の原材料としても広く用いられています。含有されるベルベリンには強力な抗菌活性があります。

Phellodendron bark is one of the crude medicines listed in The Japanese Pharmacopoeia. It is mainly used as antidiarrheal and stomachic, and formulated into many Chinese medicines and other pharmaceuticals. Berberine, one of its constituents, is known to have a strong antimicrobial activity.



1. ベルベリン
Berberine (M.W. 336.4)



【HPLC Conditions】

Column : CAPCELL PAK C₁₈ MGII S5 ; 4.6 mm i.d. x 150 mm
CAPCELL PAK C₁₈ MG S5 ; 4.6 mm i.d. x 150 mm
CAPCELL PAK C₈ DD S5 ; 4.6 mm i.d. x 150 mm

Mobile phase : CH₃CN / H₂O / KH₂PO₄ / Sodium dodecyl sulfate
= 500 mL / 500 mL / 3.4 g / 1.7 g

Flow rate : 0.7 mL/min

Temperature : 40 °C

Detection : UV 345 nm

Inj.vol. : 10 μL

Pretreatment : Phellodendron bark was cut into small pieces, and ground in a mortar with a pestle. 0.5 g of the ground scutellaria was dispersed in a solution (30 mL, 10 w/v% HCl / CH₃OH = 1 / 100). The dispersion was refluxed on a water bath for 30 min. After cooling it down, the dispersion was filtered with filter paper. The residue was rinsed with the solution. The filtered liquid and the solution used for rinsing were added together and adjusted to 100 mL in a volumetric flask. A small amount of the solution was further filtered with a 0.2-μm filter, and introduced to HPLC.

※ 1 μg/mL = 1 ppm

【References】

1) The Japanese Pharmacopoeia, (14th ~ 15th Edition) 第 14 ~ 15 改正, 日本薬局方