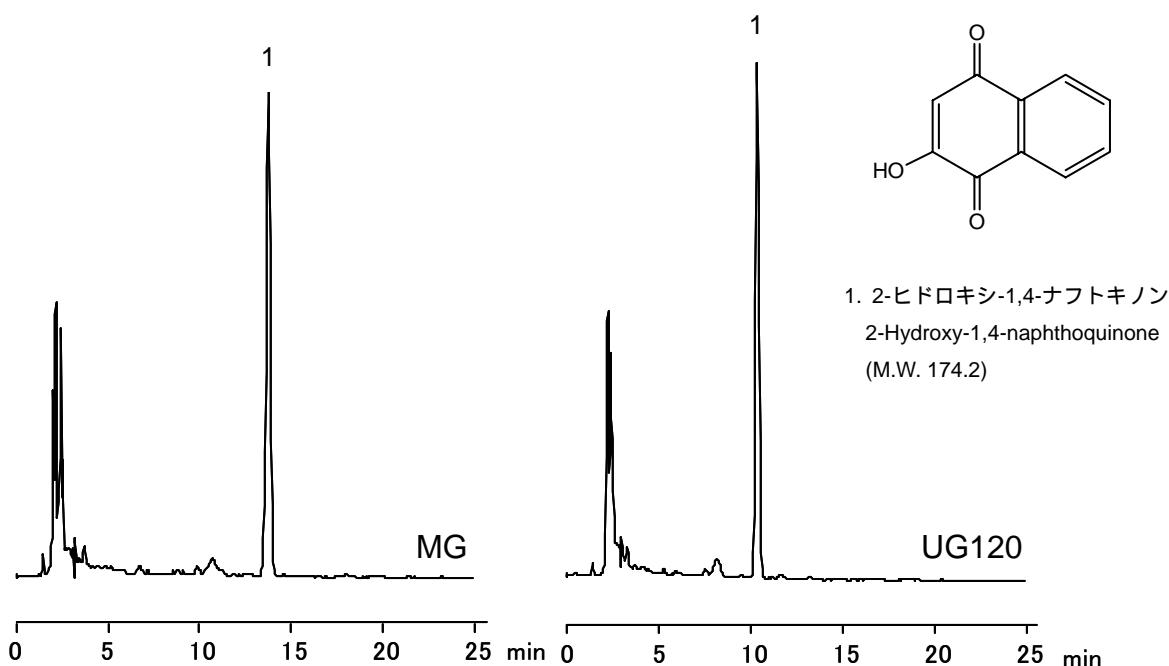


2-ヒドロキシ-1,4-ナフトキノン 2-Hydroxy-1,4-naphthoquinone

白髪染めとして用いられているヘナ中に含まれる色素成分 2-ヒドロキシ-1,4-ナフトキノン (別名:ローソン) の分析例です。今回は, CAPCELL PAK C₁₈ MG 及び UG120 による分析例を示します。

Also known as "lawson", the pigment is contained in henna, a substance used as dye for white hair. Chromatograms were obtained with both CAPCELL PAK C₁₈ MG and UG120 columns.



【HPLC Conditions】

Column : CAPCELL PAK C₁₈ MG S5 ; 4.6 mm i.d. x 250 mm
CAPCELL PAK C₁₈ UG120 S5 ; 4.6 mm i.d. x 250 mm

Mobile phase : 10 mmol/L KH₂PO₄ (adjusted at pH 7.5 with 3 mol/L KOH) /
CH₃OH = 4 / 1

Flow rate : 1 mL/min

Temperature : 40 °C

Detection : UV 275 nm

Inj. vol. : 10 µL

Pretreatment : 10mL of extracting buffer *1 was added to 0.05 g of henna powder. After 15 min, the mixture was sonicated (60°C, 15 min), and centrifuged (3000 rpm, 5 min). 2 mL of the supernatant was collected and mixed with 1.34 mL of methanol. The mixed liquid was diluted to 10 mL with another mixed liquid (the extracting buffer / methanol = 6 / 4).

*1 Extracting buffer : A buffer solution (10 mmol/L KH₂PO₄ / 10 mmol/L Na₂HPO₄ = 1 / 1) was adjusted at pH 8 with 3 mol/L KOH.

※ 1 µg/mL = 1 ppm