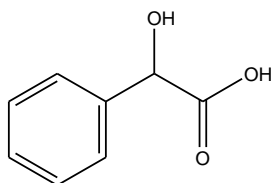


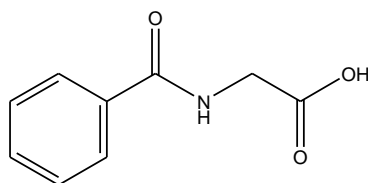
馬尿酸

Hippuric acids

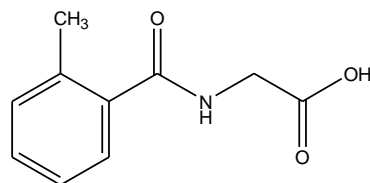
馬尿酸類は、人体に摂取された芳香族炭化水素が肝臓で生成され尿中に排泄されることで知られています。ここでは、カラムに CAPCELL PAK ADME-HR S5 (2.1 mm i.d. x 150 mm) を用いた分析例を示します。移動相に THF (テトラヒドロフラン) を加えることで、異性体の分離を達成しています。



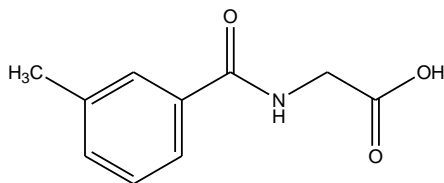
1. マンデル酸 (100 µg/mL)
Mandelic acid (M.W. 152.1)



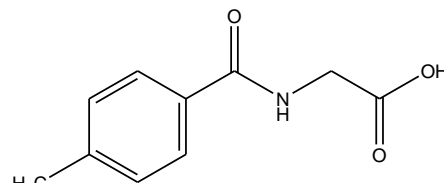
2. 馬尿酸 (50 µg/mL)
Hippuric acid (M.W. 179.2)



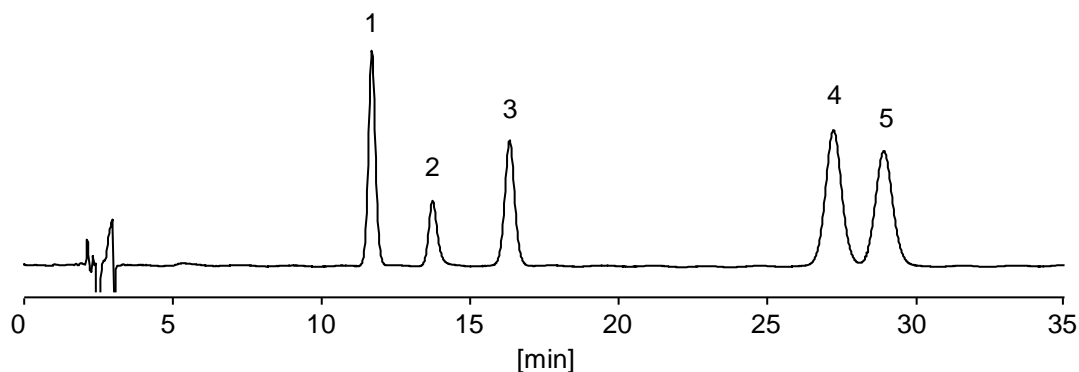
3. *o*-メチル馬尿酸 (100 µg/mL)
o-Methylhippuric acid (M.W. 193.2)



4. *m*-メチル馬尿酸 (100 µg/mL)
m-Methylhippuric acid (M.W. 193.2)



5. *p*-メチル馬尿酸 (100 µg/mL)
p-Methylhippuric acid (M.W. 193.2)



【HPLC Conditions】

Column	: CAPCELL PAK ADME-HR S5 ; 2.1 mm i.d. x 150 mm
Mobile phase	: 0.1 vol% HCOOH / THF = 95 / 5
Flow rate	: 200 µL/min
Temperature	: 40 °C
Detection	: UV 225 nm
Inj. vol.	: 1 µL

Sample dissolved in : Mandelic acid and hippuric acid were dissolved in water / acetonitrile = 1/1 (v/v) at 1 mg/mL.
o-Methylhippuric acid, m-methylhippuric and p-methylhippuric were dissolved in water / methanol / acetonitrile = 5/4/1 (v/v/v) at 1 mg/mL. Hippuric acid (50 µg/mL) and the other compounds (100 µg/mL) were mixed together.
Water was added to the mixture to make it 1 mL.
※ 1 µg/mL = 1 ppm