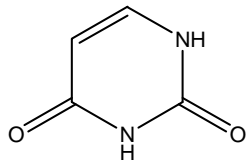


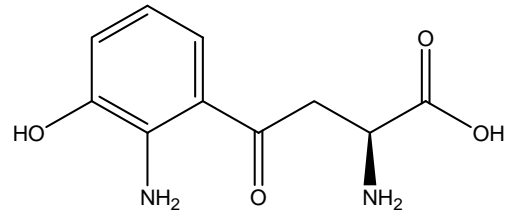
トリプトファン代謝物

Tryptophan and its metabolites

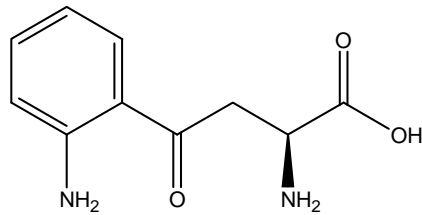
トリプトファンとその代謝物の分析例を示します。カラムは、CAPCELL PAK ADME S3 (4.6 mm i.d. x 100 mm) を用いました。高極性化合物の代表例としてウラシルも加えました。良好なピーク形状で十分な分離が得られました。



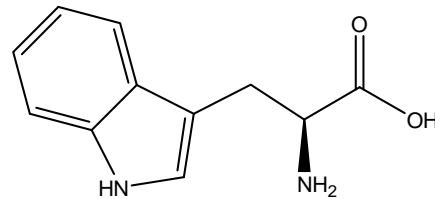
1. ウラシル (18 $\mu\text{g/mL}$)
Uracil (M.W. 112.1)



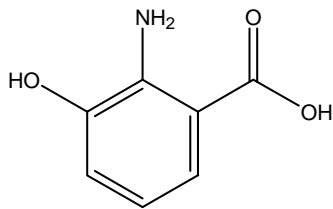
2. 3-ヒドロキシキヌレニン (100 $\mu\text{g/mL}$)
3-Hydroxykynurenine (M.W. 224.2)



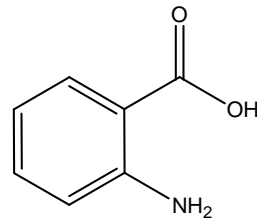
3. キヌレニン (200 $\mu\text{g/mL}$)
Kynurenine (M.W. 208.2)



4. トリプトファン (200 $\mu\text{g/mL}$)
Tryptophan (M.W. 204.2)

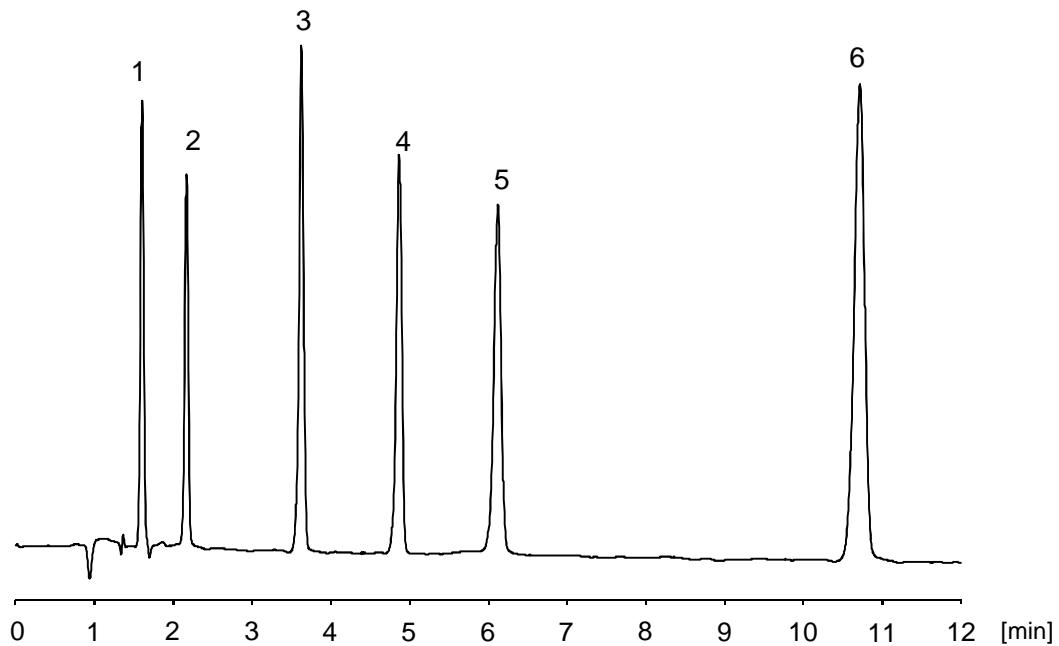


5. 3-ヒドロキシアントラニル酸 (200 $\mu\text{g/mL}$)
3-Hydroxyanthranilic acid (M.W. 153.1)



6. アントラニル酸 (200 $\mu\text{g/mL}$)
Anthranilic acid (M.W. 137.1)

1. Uracil
2. 3-Hydroxykynurenine
3. Kynurenine
4. Tryptophan
5. 3-Hydroxyantranilic acid
6. Antranilic acid



【HPLC Conditions】

Column : CAPCELL PAK ADME S3 ; 4.6 mm i.d. x 100 mm
 Mobile phase : A) 10 mmol/L Ammonium formate buffer (pH 4)
 B) CH₃CN
 B 5 % (0 min) -> 25 % (13.3 min) -> 5 % (13.4 min) Gradient
 Flow rate : 1 mL/min
 Temperature : 40 °C
 Detection : UV 254 nm
 Inj. vol. : 1 µL
 Sample dissolved in : 3-Hydroxykynurenine was dissolved in water / methanol / acetonitrile = 2/1/1 (v/v/v) at 0.8 mg/mL. 3-Hydroxyanthranilic acid was dissolved in methanol/acetonitrile = 1/1 (v/v) at 2 mg/mL. All the other compounds were dissolved in water at 2 mg/mL. 3-Hydroxykynurenine (125 µL), tryptophan (150 µL), uracil (9 µL) and the other compounds (100 µL) were mixed together. Water was added to the mixture to make it 1 mL.
 ※ 1 µg/mL = 1 ppm