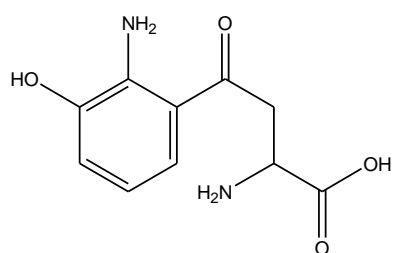


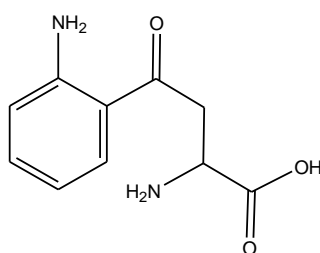
## キヌレニン経路

## Kynurenine pathway

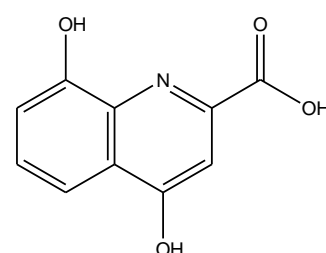
キヌレニン経路はトリプトファンの代謝経路のひとつであり、人体では摂取されたトリプトファンの大部分がキヌレニン経路により代謝されています。その代謝物の分析例を示します。CAPCELL PAK INERT ADME-HR S3 (2.0 mm i.d. x 150 mm) を用いることで、良好なピーク形状及び分離が得られました。



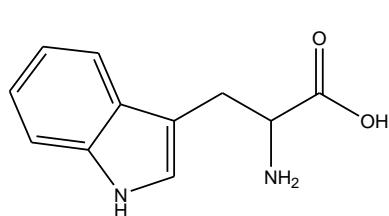
1. 3-ヒドロキシキヌレニン (100 µg/mL)  
3-Hydroxykynurenine (M.W. 224.2)



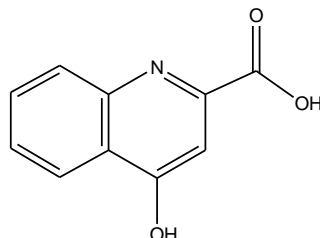
2. キヌレニン (100 µg/mL)  
Kynurenine (M.W. 208.2)



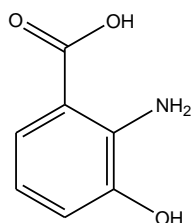
3. キサンツレン酸 (20 µg/mL)  
Xanthurenic acid (M.W. 205.2)



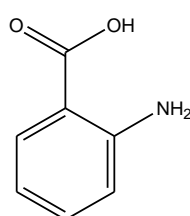
4. トリプトファン (100 µg/mL)  
Tryptophan (M.W. 204.2)



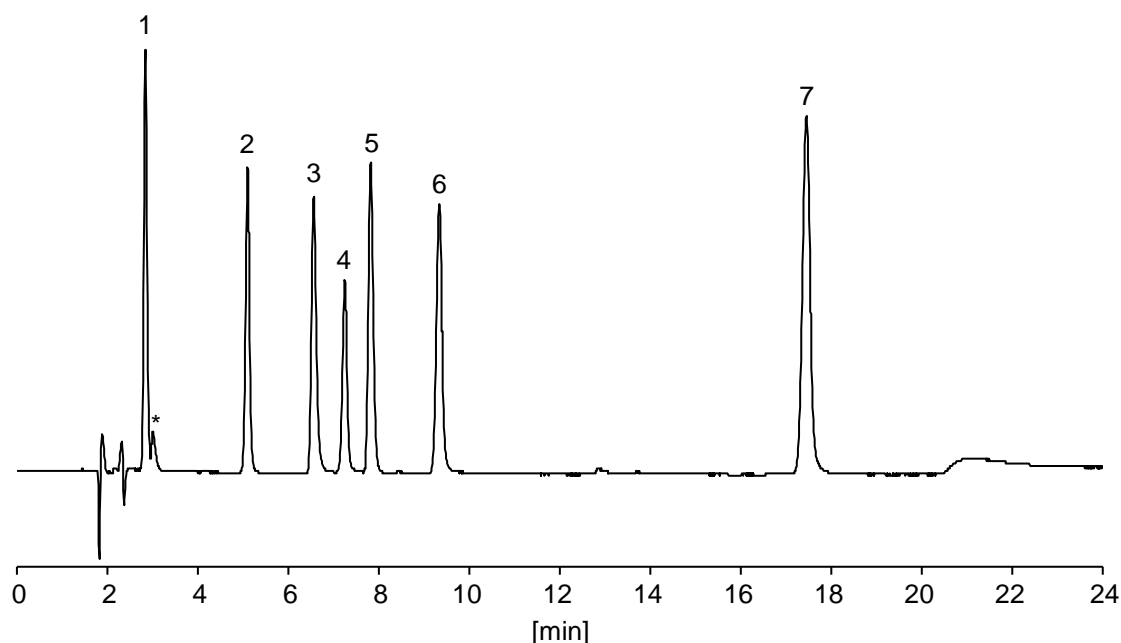
5. キヌレン酸 (25 µg/mL)  
Kynurenic acid (M.W. 189.2)



6. 3-ヒドロキシアントラニル酸 (100 µg/mL)  
3-Hydroxyanthranilic acid (M.W. 153.2)



7. アントラニル酸 (100 µg/mL)  
Anthranilic acid (M.W. 137.1)



**【HPLC Conditions】**

Column : CAPCELL PAK INERT ADME-HR S3 ; 2.0 mm i.d. x 150 mm  
 Mobile phase : A) 10 mmol/L Ammonium formate buffer (pH 3.7)  
                   B) CH<sub>3</sub>CN  
                   B 5 % (0 min) -> 20 % (18 min) -> 5 % (18.1 min) Gradient  
 Flow rate : 200 μL/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. Xanthurenic acid was  
 dissolved in 10 mmol/L NaOH at 1 mg/mL. Kynurenic acid was  
 dissolved in *N,N*-dimethylformamide at 1 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.  
 Xanthurenic acid (20 μg/mL), kynurenic acid (25 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  
 \* Impurity derived from xanthurenic acid