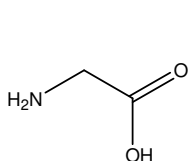


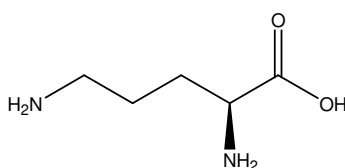
## L-ドパ、アミノ酸

## L-DOPA, Amino acids

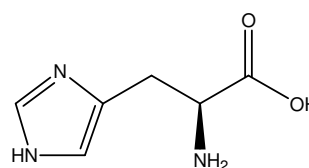
タンパク質を構成するアミノ酸の中で最も単純な形を持つグリシン、塩基性アミノ酸であるオルニチン、ヒスチジン及びリジン、また L-チロシンから体内で合成される L-ドパは非常に極性の高い化合物です。ここでは、CAPCELL PAK C<sub>18</sub> MGIII を用いた分析例を示します。酸の種類における溶出挙動を比較すると、ギ酸<トリフルオロ酢酸<ヘptaフルオロ酢酸の順番に保持力が増加しています。



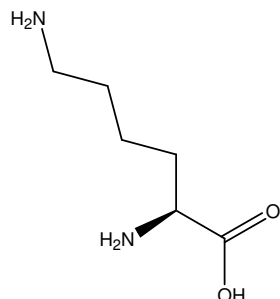
1. グリシン (100 µg/mL)  
Glycine (M.W. 75.1)



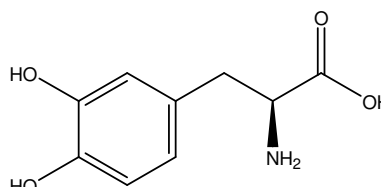
2. L-オルニチン (100 µg/mL)  
L-Ornithine (M.W. 132.2)



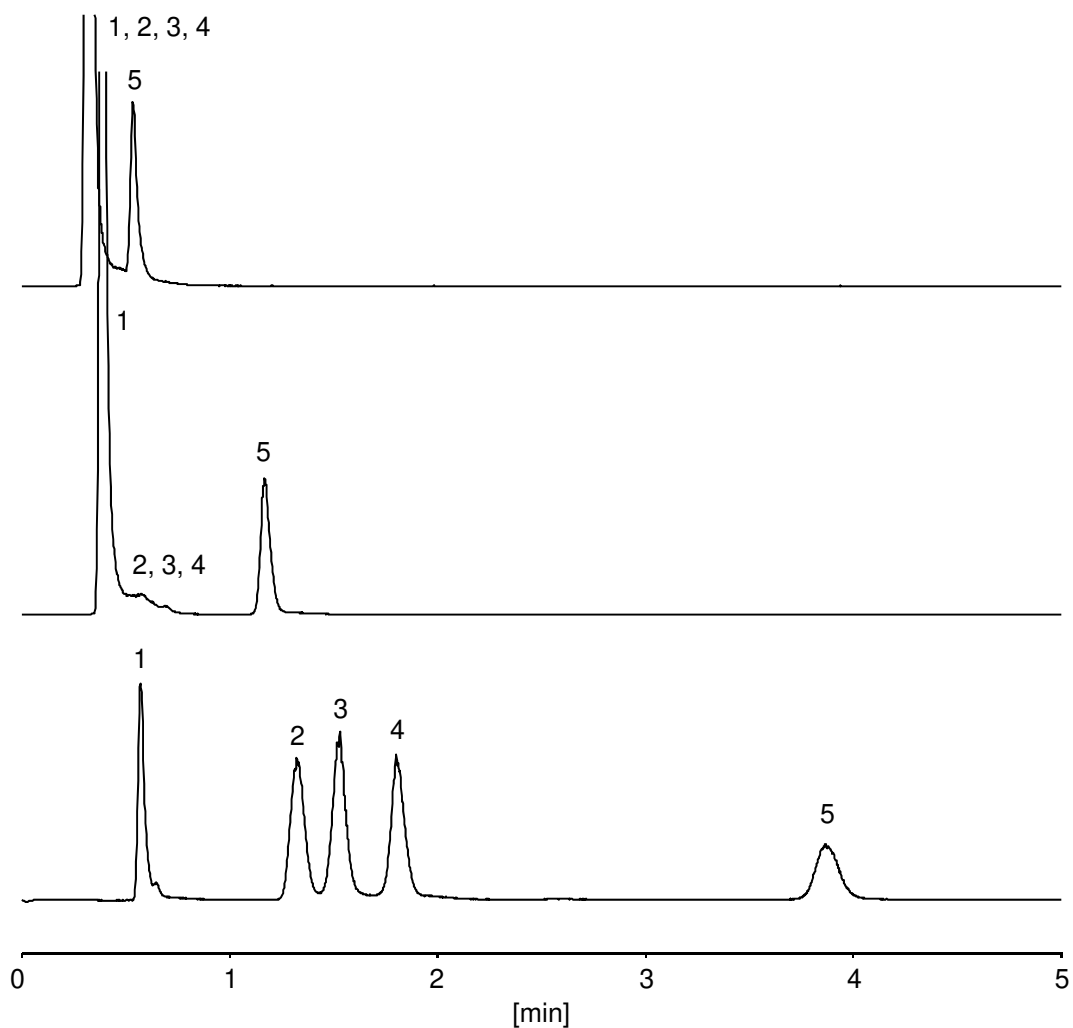
3. L-ヒスチジン (100 µg/mL)  
L-Histidine (M.W. 155.2)



4. L-リジン (100 µg/mL)  
L-Lysine (M.W. 146.2)



5. L-ドパ (100 µg/mL)  
L-DOPA (M.W. 197.2)



**【HPLC Conditions】**

Column : CAPCELL PAK C<sub>18</sub> MGIII S3 ; 2.0 mm i.d. x 50 mm  
 Mobile phase : 0.1 vol% HCOOH / CH<sub>3</sub>CN = 99 / 1 (upper)  
                   0.1 vol% TFA / CH<sub>3</sub>CN = 99 / 1 (middle)  
                   0.1 vol% C<sub>3</sub>F<sub>7</sub>COOH / CH<sub>3</sub>CN = 99 / 1 (lower)  
 Flow rate : 400 μL/min  
 Temperature : 40 °C  
 Detector : NQAD (Evaporation 60 °C, Nebulizer 30 °C)  
 Inj. vol. : 1 μL  
 Sample dissolved in : Each amino acid was separately dissolved in H<sub>2</sub>O at 1 mg/mL.  
                           L-DOPA was dissolved in 0.1 vol% formic acid at 500 μg/mL.  
                           100 μL of each amino acid solution and 200 μL of L-DOPA  
                           solution were mixed together. The mixture was diluted to 1 mL  
                           by adding H<sub>2</sub>O.  
                           ※ 1 μg/mL = 1 ppm