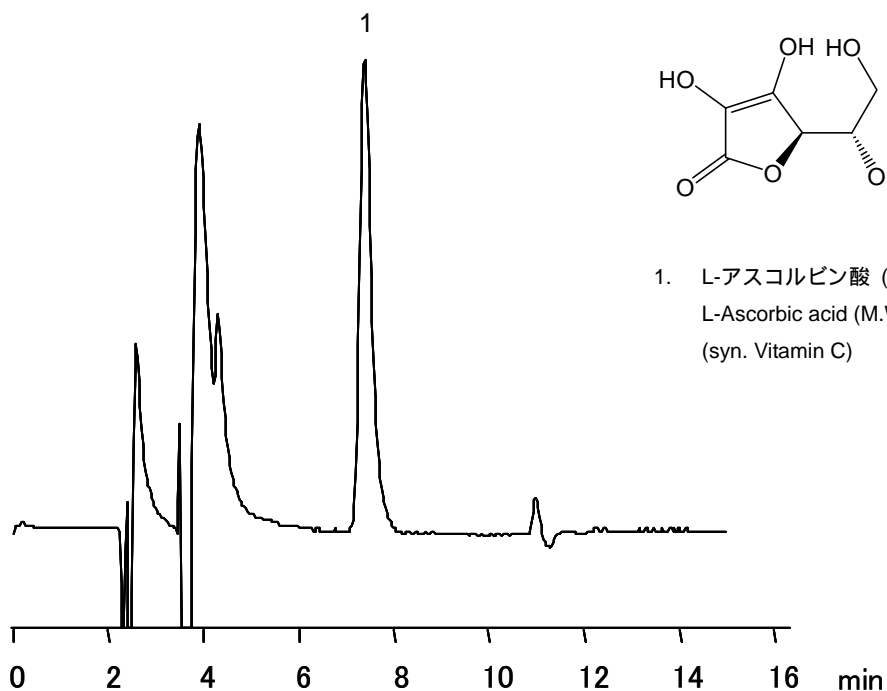


## L-アスコルビン酸 ( ビタミン C )      L-Ascorbic acid (Vitamin C)

アスコルビン酸は電気化学活性を持ち、その酸化還元電位は比較的低いため電気化学検出器 (ECD) による高感度かつ選択性の高い検出が可能です。通常、ECDでは 50 ~ 1000 ng/mLの範囲の直線性を示します。

Ascorbic acid is electrochemically active at a relatively low redox potential, and can be detected highly sensitively and selectively with an electrochemical detector (ECD). Generally, ECD shows a linear dynamic range of 50 - 1000 ng/mL for the compound.



1. L-アスコルビン酸 (100 ng/mL)  
L-Ascorbic acid (M.W. 176.1)  
(syn. Vitamin C)

### 【HPLC Conditions】

Column : CAPCELL PAK C<sub>18</sub> MGII S5 ; 1.5 mm i.d. x 250 mm  
Mobile phase : 0.2 mol/L KH<sub>2</sub>PO<sub>4</sub> (adjusted at pH3 with phosphoric acid),  
1 mmol/L Dodecyl trimethyl ammonium chloride, 0.5 mmol/L EDTA  
Flow rate : 100 μL/min  
Temperature : 40 °C  
Detection : ECD 350 mV  
Inj. vol. : 5 μL  
Sample dissolved in : 5 w/v% Metaphosphoric  
※ 1 μg/mL = 1 ppm

### 【References】

- 1) Keizo Umegaki, Mika Yoshimura, Mamoru Nishimura, Takatoshi Esashi. *J. Jpn. Soc. Nutr. Food Sci.* **52**, 107-111 (1999).