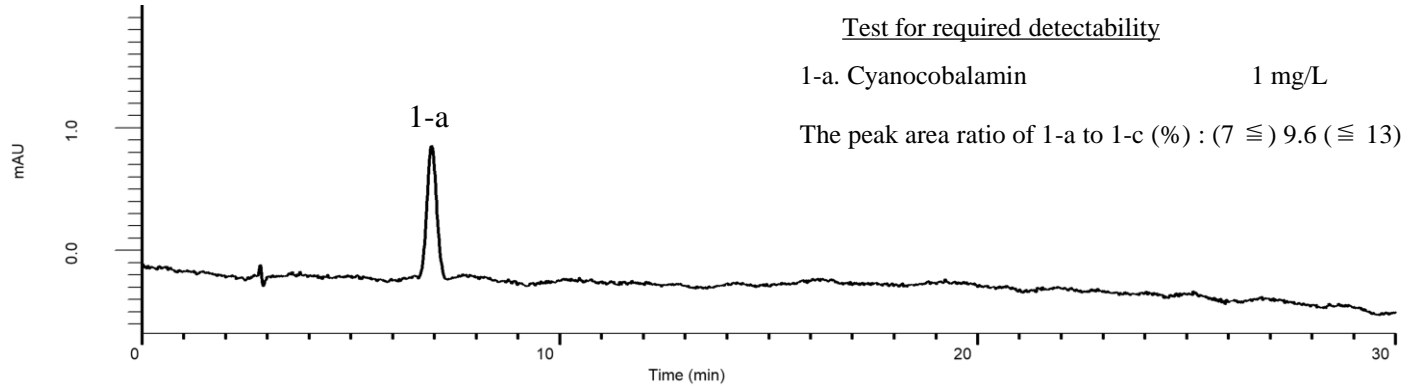


# Analysis of Cyanocobalamin

(Under the Condition of the Japanese Pharmacopoeia)

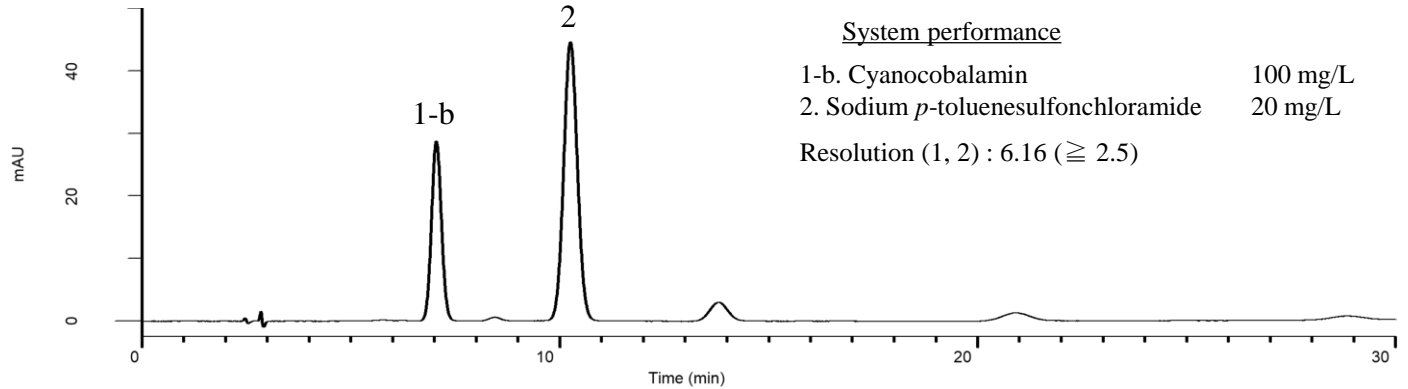
Test for required detectability

1-a. Cyanocobalamin 1 mg/L  
 The peak area ratio of 1-a to 1-c (%) :  $(7 \cong) 9.6 (\cong 13)$



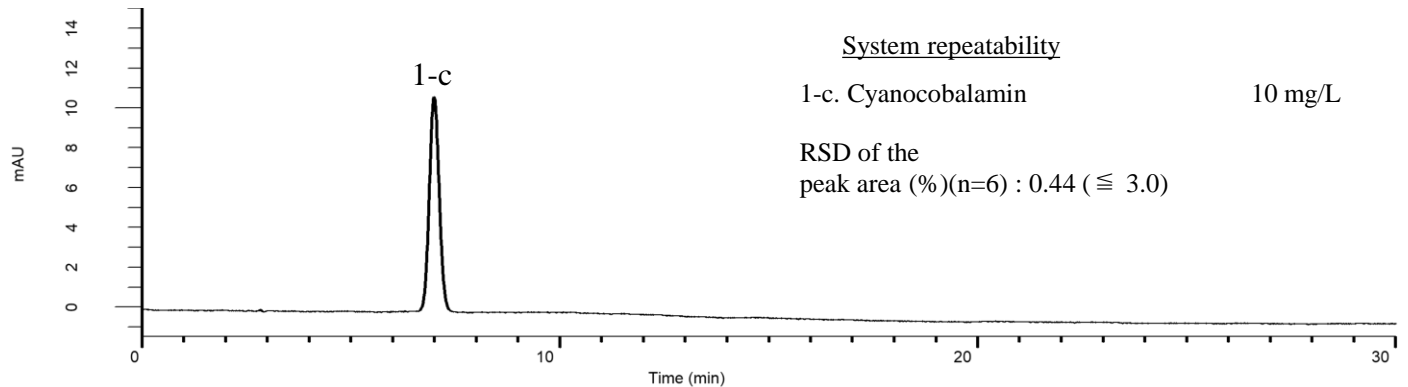
System performance

1-b. Cyanocobalamin 100 mg/L  
 2. Sodium *p*-toluenesulfonchloramide 20 mg/L  
 Resolution (1, 2) :  $6.16 (\cong 2.5)$



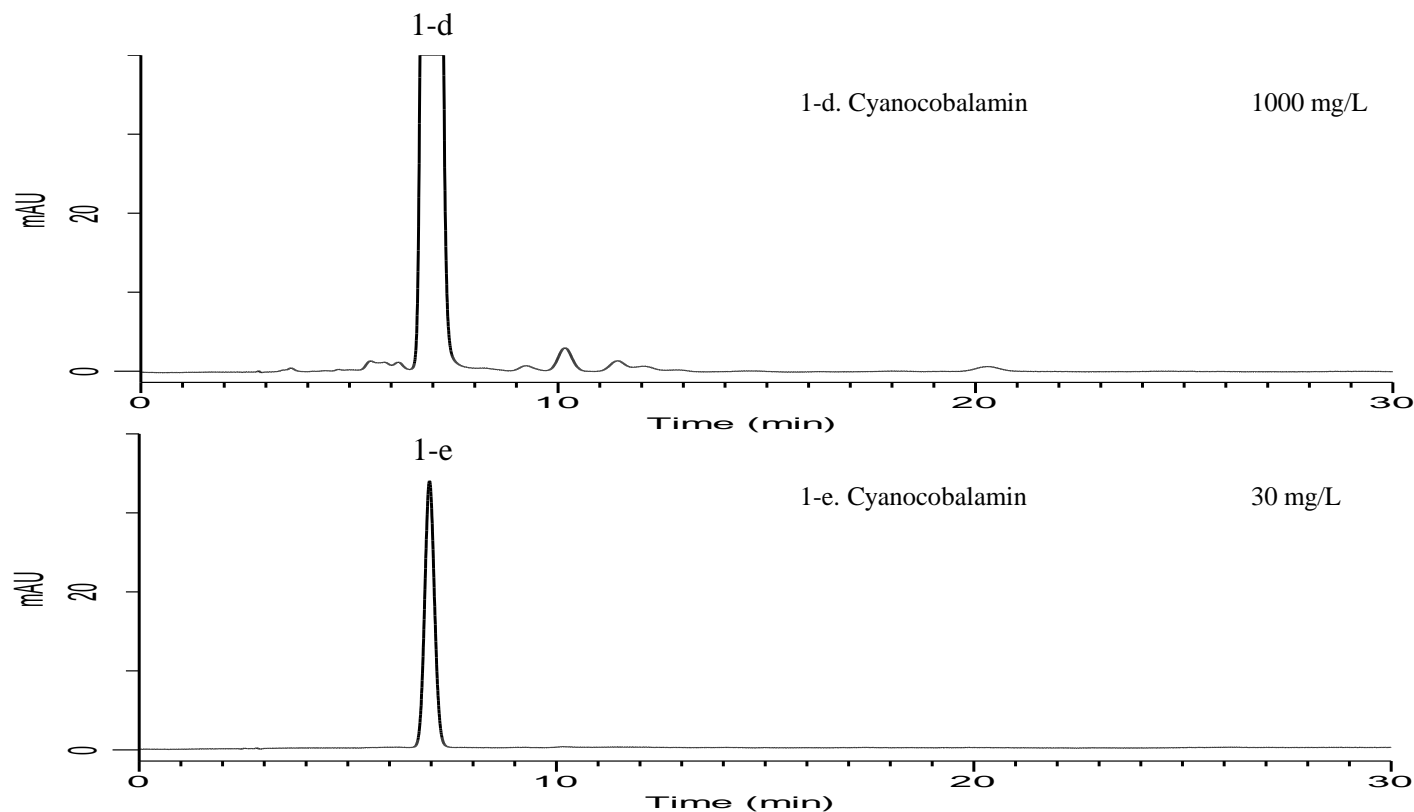
System repeatability

1-c. Cyanocobalamin 10 mg/L  
 RSD of the peak area (%) (n=6) :  $0.44 (\cong 3.0)$



## Analysis of Cyanocobalamin

(Under the Condition of the Japanese Pharmacopoeia)



### Conditions

**System** : GL-7400 HPLC system  
**Column** : InertSustain C8  
 (5  $\mu$  m, 250 x 4.6 mm I.D.)  
**Column Cat. No.** : 5020-16028  
**Eluent** : A) CH<sub>3</sub>OH  
 B) 70 mM Na<sub>2</sub>HPO<sub>4</sub> in H<sub>2</sub>O  
 (pH 3.5, H<sub>3</sub>PO<sub>4</sub>)  
 A/B = 53/147, v/v  
**Flow Rate** : 1.05 mL/min  
**Col. Temp.** : 30 °C  
**Detection** : UV 361 nm (GL-7452 PDA Detector)  
**Injection Vol.** : 20  $\mu$  L  
**Sample** : Standard

### Analyte:

1. Cyanocobalamin