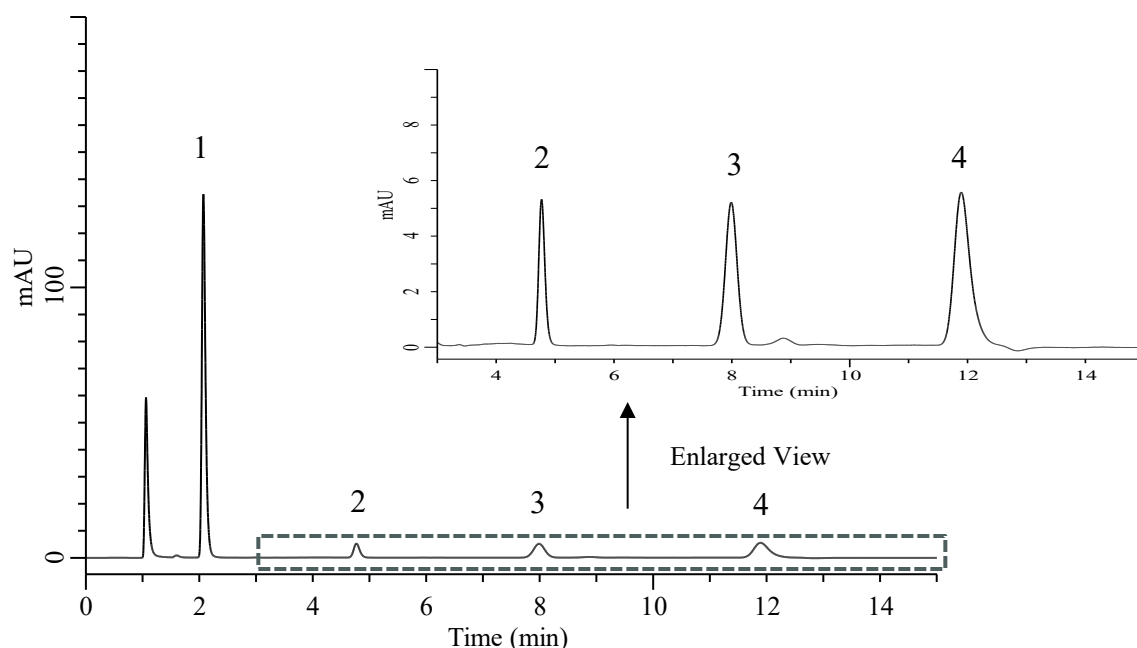


# Analysis of Nicotinic acid, Pyridoxine hydrochloride, Riboflavin, Thiamine hydrochloride

(Under the Condition of USP41-NF36, Oil- and Water-Soluble Vitamins Capsules\_ Niacin or Niacinamide , Pyridoxine hydrochloride, Riboflavin, and Thiamine \_Method 3)



## Conditions

**System** : Chromaster PLUS (HITACHI)  
**Column** : InertSustain C8 (GL Sciences Inc.)  
 (5  $\mu$ m, 250 x 4.6 mm I.D.)  
**Column Cat. No.** : 5020-16028  
**Eluent** : Solution\*  
**Flow Rate** : 2.0 mL/min  
**Col. Temp.** : 50  $^{\circ}$ C  
**Detection** : UV 270 nm (Chromaster 5410 UV)  
**Injection Vol.** : 5  $\mu$ L  
**Sample** : Standard

## Analyte:

|                             |                  |
|-----------------------------|------------------|
| 1. Nicotinic acid           | 187.5 $\mu$ g/mL |
| 2. Pyridoxine hydrochloride | 30.0 $\mu$ g/mL  |
| 3. Riboflavin               | 10.0 $\mu$ g/mL  |
| 4. Thiamine hydrochloride   | 30.0 $\mu$ g/mL  |

RSD of the  
 peak area of 1 (%) (n=6) : 0.53 ( $\leq$ 2.0)  
 peak area of 2 (%) (n=6) : 0.80 ( $\leq$ 2.0)  
 peak area of 3 (%) (n=6) : 1.33 ( $\leq$ 2.0)  
 peak area of 4 (%) (n=6) : 1.04 ( $\leq$ 2.0)

\*: Transfer 0.4 mL of triethylamine, 15.0 mL of glacial acetic acid, and 350 mL of methanol to a 2000-mL volumetric flask. Dilute with 0.008 M sodium 1-hexanesulfonate to volume.