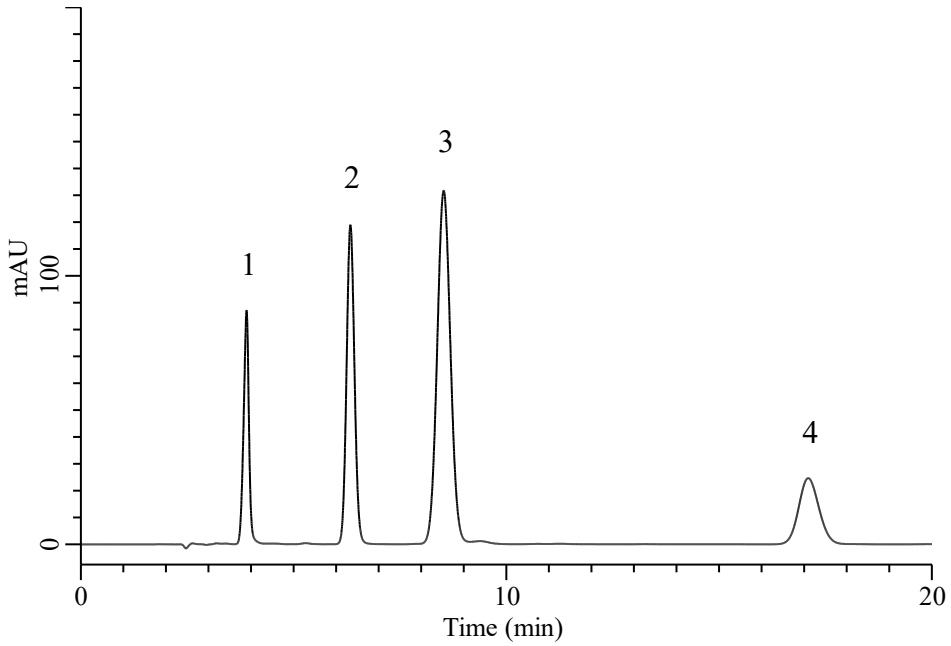
# Analysis of Nicotinamide, Pyridoxine hydrochloride, Riboflavin, Thiamine hydrochloride

**(Under the Condition of USP41-NF36, Oil- and Water-Soluble Vitamins Capsules_ Niacin or Niacinamide , Pyridoxine hydrochloride, Riboflavin, and Thiamine _Method 1)**




## Conditions

| | | |
|---|---|---|
| **System** | : | Chromaster PLUS (HITACHI) |
| **Column** | : | InertSustain C18 (GL Sciences Inc.) (10 µm, 300 x 3.9 mm I.D.) |
| **Column Cat. No.** | : | 5020-90556 |
| **Eluent** | : | A) $CH_3OH$<br>B) $CH_3COOH$<br>C) $H_2O$<br>A/B/C=27/1/73*,v/v/v |
| **Flow Rate** | : | 1.0 mL/min |
| **Col. Temp.** | : | 40 °C |
| **Detection** | : | UV 280 nm (Chromaster 5410 UV) |
| **Injection Vol.** | : | 10 µL |
| **Sample** | : | Standard |

**Analyte:**

| | | |
|---|---|---|
| 1. | Nicotinamide | 0.4 mg/mL |
| 2. | Pyridoxine hydrochloride | 0.1 mg/mL |
| 3. | Riboflavin | 0.1 mg/mL |
| 4. | Thiamine hydrochloride | 0.1 mg/mL |

Relative retention times

| | |
|---|---|
| Nicotinamide | : 0.22 |
| Pyridoxine hydrochloride | : 0.37 |
| Riboflavin | : 0.52 |
| Thiamine hydrochloride | : 1.00 |

RSD of the

| | |
|---|---|
| peak area of 1 (%)(n=6) | : 0.29 (≦3.0) |
| peak area of 2 (%)(n=6) | : 0.19 (≦3.0) |
| peak area of 3 (%)(n=6) | : 0.25 (≦3.0) |
| peak area of 4 (%)(n=6) | : 0.26 (≦3.0) |

*: A mixture containing 140 mg of sodium 1-hexanesulfonate per 100 mL.