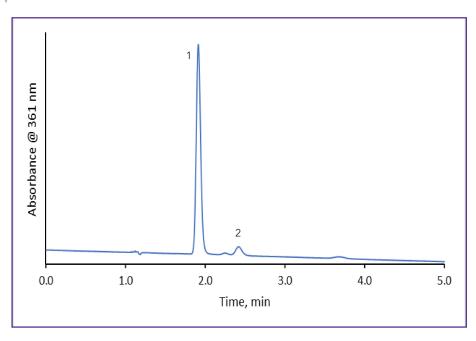


VITAMINS



Vitamin B12 Analysis According to Chinese Pharmacopoeia (CP) Method

258-V



PEAK IDENTITIES

- 1. Cobalamin (B12)
- 2. Impurity

TEST CONDITIONS:

Column: HALO 90 Å C18, 5 μm, 4.6 x150 mm

Part Number: 95814-702

Isocratic: $26/74 \text{ MeOH}/ 28 \text{ mM Na}_2\text{HPO}_4 \text{ pH}: 3.5$

Flow Rate: 1.0 mL Pressure: 209 bar Temperature: 30 °C

Detection: UV 361 nm, PDA

Injection Volume: 10 µL System Suitability Solution

Back Pressure: 205 bar

Sample Solvent: mobile phase

Data Rate: 100 Hz

Response Time: 0.025 sec

Flow Cell: 1 µL

LC System: Shimadzu Nexera X2

Cobalamin, better known as vitamin B12, is one of the eight water soluble vitamins. It is the largest and most complex vitamin. A separation of cobalamin is achieved using a HALO 90 $\mathring{\text{A}}$ C18, 5 μ m column following the Chinese Pharmacopoeia method. A resolution value of 4.35 is observed, well above the specification required in the method (>2.5).