



Biometrics
Quality of life

mini LC-80

The First Ever Compact
High Performance Liquid Chromatography

Outstanding Features of mini LC-80

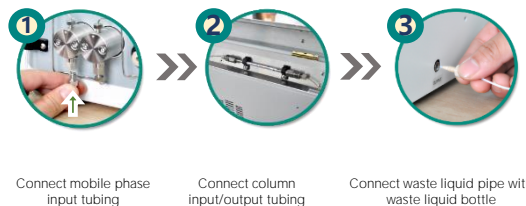
Compact

The integration and the modularity of High-Pressure (constant Flow) Pump, Injector, Column Oven, UV Detector, and tray in miniLC-80 unit.



Convenient

Tubing between units and signal cables are all integrated in mini LC-80. No need of a long-term training, high efficiency lies in the easy installation in just 3 steps before operation of unit and convenience of maintenance.



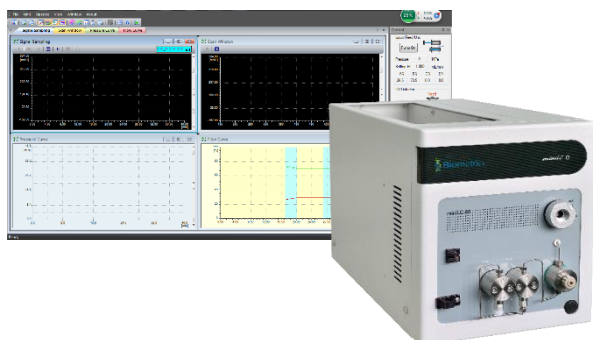
Intelligent control system

mini LC-80 is equipped with intelligent chromatographic working station networked. Unit is controlled directly by chromatographic working station; state of unit and analytical results both chromatogram and raw data in term of qualitative and quantitative can be efficiently and conveniently acquired from the working station.

The small unit mini LC-80 is integrated with a powerful intelligent control system like the leakage alarm system and the pump head decompression alarm system normally seen in the high-end instruments.

Accessories newly upgraded

Compared with the former edition, the HPLC upgrades from a normal piston seal to the one of high abrasion resistance, from check valve to integrated check valve. Under the guarantee of long service life, maintenance costs are significantly reduced.



Structure of mini LC-80

Tray

On the left of the top sits the tray which enables the placement of 3 reagent bottles of 500 mL capacity.

Installation of internal column

Able to install the maximum 30 cm. column length in cavity. Erecting frame of internal column can be upgraded into a column oven (room temperature +5 to 80 °C)

Injector Valve

Basic configuration of manual injection valve. Possibility of connection to Auto-sampler.

Intelligent control

Intelligent control, real-time monitoring and data sharing available.

Pump System

Isocratic function and replacement of infusion pump by micropump provides a smaller size and a higher integration of unit.

Detector

UV-VIS detector (180-680 nm) is the basic configuration which can analyze as Cannabinoids, Vitamins Aflatoxins, Terpene..etc, which provides a convenient connection and operation.

room temp +5 to 80°C

Application

Detection of vitamin content in the feed

Methods source: GB/T 17817-2010, GB/T 17818-2010, GB/T 17812-2008

Sample: Vitamin A acetate, Vitamin D3, Vitamin E acetate

Sample extraction: second method in standard (Methanol extract)

Instrument: mini LC-80

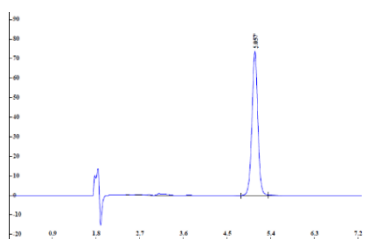
Column: EXFORNMA C18(L), 4.6×150mm, 5 μm

Mobile phase: methanol : water (95:5) **Flow rate:** 1.0mL/min

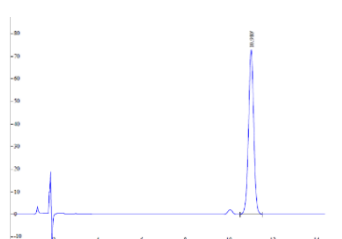
Column temperature: 25 °C

Injection Volume: 20 μL

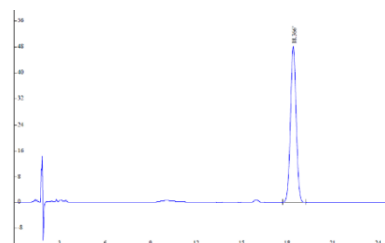
UV detection wavelength(nm): Vitamin A acetate (326 nm), Vitamin D3 (264 nm), Vitamin E acetate (280 nm)



Vitamin A acetate



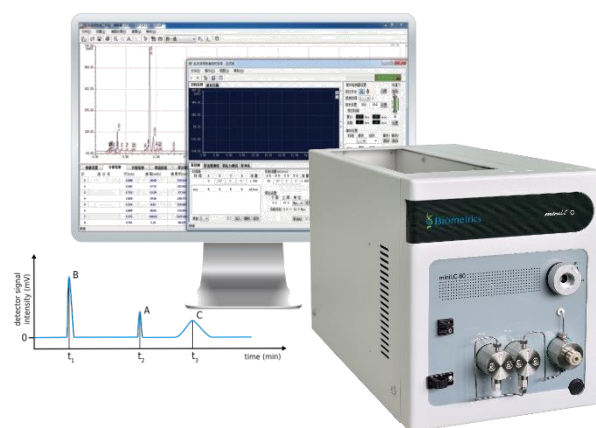
Vitamin D3



Vitamin E acetate

Product Specifications

| Model | mini LC-80 |
|----------------------------------|--|
| Flow Rate | 0.001 – 5.000 mL/min |
| Flow Precision | <0.1% |
| Flow Accuracy | ±1% RSD |
| Maximum Pressure | 40 MPa (400 bar or 5800 psi) |
| Qualitative Repeatability | ≤0.2% RSD (Naphthalene in Methanol) |
| Quantitative Repeatability | ≤0.5% RSD (Naphthalene in Methanol) |
| Pressure Fluctuation | 0.1 MPa |
| Detector | UV-VIS (180-680 nm) |
| Spectrum Bandwidth | 8 nm |
| Wavelength Accuracy | ±1 nm |
| Wavelength Precision | ±0.1 nm |
| Noise | ±0.25X10 ⁻⁵ AU (Static) , ±1X10 ⁻⁵ AU (Dynamic, given conditions) |
| Drift | ≤0.4X10 ⁻⁴ AU/h (Static) , ≤2X10 ⁻⁴ AU/h (Dynamic, given conditions) |
| Minimum Detectable Concentration | 5X10 ⁻⁹ g/mL (Naphthalene in Methanol) |
| Overall Dimension (mm) | 455 (L) X 220 (W) X 267 (H) |



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