

# LC-MS/MS 6880

Liquid Chromatography Mass Spectrometer / Mass Spectrometer



## INTRODUCTION

The LC-MS /MS 6880 triple quadrupole liquid chromatography mass spectrometer simplifies the process of complex analysis through intelligent workflow, with high sensitivity and reliable quantitative function. Each individual module can be operated intelligently, and the system provides a lower limit of quantitative detection, synchronous data processing selectivity, and thus maximizes laboratory efficiency. For biopharmaceutical, universities, research institutes and other institutions to provide the best mass spectrometry solutions and intelligent instrument configuration.

## PERFORMANCE CHARACTERISTICS

- ESI/APCI free switching, optional installation
- High efficiency ceramic heater heat setting technology
- Active emptying system to reduce interference to ion source contamination
- Human-machine dialogue access mode of instrument, more intelligent
- Optimal overall solution
- Reliable quantitative data
- Comprehensive real case of the project
- Quick reporting mode
- Software specialization and unique interface protocol provide reliability
- Quality Express™, data Express™,
- Software unique professional extension interface
- Maintain high sensitivity
- Streamline workflow
- Improved work efficiency
- Ensure the stability of the instrument
- Enhanced ionization efficiency, reduced degradation of thermally unstable compounds and increased sensitivity.

## APPLICATION DIRECTION

High-performance instruments provide the most ideal solution for a wide range of applications in food safety, pharmaceutical analysis, environmental science, toxicological judgment and chemical structure characterization.

## TECHNICAL PARAMETERS

### ● Ultra high pressure liquid chromatograph

- Pump system: double cylinder HPG(high pressure mixing) double channel
- Flow range :0.001 ~ 2.000mL/min(Max. 5 mL/min)
- Flow accuracy :1% or 10 $\mu$ L/min
- Flow accuracy: 0.075%RSD or 0.005min SD
- maximum working pressure :0 ~ 18850psi (0 ~ 1300 bar)
- Sample capacity :108 bits (2mL Abei bottle)
- Sample temperature :4 ~ 40°C

### ● Triple quadrupole mass spectrometer

#### · Ion source

1. The ion source ensures the maximum amount of ion ionization and minimizes neutral particles and high-energy ion groups that produce noise.
2. The axial direction of the spray atomizer is perpendicular to the interface of the orifice plate to improve the spray effect and greatly reduce the neutral particles entering the mass spectrometer, thus eliminating noise.
3. Substances of different polarity can be analyzed by providing electrospray ion source (ESI) and atmospheric pressure chemical ionization source (APCI).

- Ion guidance: High frequency (RF) double ion funnel optical optimization, large range of ion transport and efficient ion focusing.
- Quadrupole with front and rear filters 1 and 2 are used for optimized ion transport and spectral level resolution.
- Collision unit: The collision unit has an optimized mode of 180 degree bending at high pressure, while eliminating interference.
- Detector: electron accelerator with 5kV post acceleration.
- Vacuum system: two single-stage 40L/h primary pumps, three-stage 25/300/400L/s turbomolecular pumps

#### · System performance

1. MRM sensitivity, SIGNAL-to-noise ratio (S/N), ESI positive ions  
Reserpine 1pg, scanning m/z 609 to 195 for quantification; S/N : 1000000:1
2. MRM sensitivity, SIGNAL-to-noise ratio (S/N), ESI anion  
1pg chloramphenicol, scanning m/z 321 to 152 for quantification; S/N : 500000:1
3. Quality range: M/Z 10 ~ 1250
4. Polarity switch: 25ms
5. Quality resolution: 0.7DA to 4.0DA (user adjustable)
6. Quality stability: 0.1Da/24h
7. Dynamic range>10<sup>5</sup>
8. Scanning mode: full scan, daughter ion scan, precursor ion scan, neutral loss scan, selective ion scan (SRM/MRM)
9. Maximum scanning rate: 20000 Da/S
10. Maximum MRM acquisition rate: 600 MRMs/S
11. Minimum MRM residence time: 1.0ms