

The Agilent 6490 Triple Quadrupole LC/MS

The Agilent 6490 Triple Quadrupole LC/MS achieves sensitivity and resolution specifications after autotune without manual user intervention

Parameter	Measure	Specification
Electrospray ESI+ MS/MS sensitivity	1 pg of reserpine on the transition m/z 609 to 195	Signal-to-noise ratio > 60,000:1
Electrospray ESI- MS/MS sensitivity	1 pg of chloramphenicol on the transition m/z 321 to 152	Signal-to-noise ratio > 50,000:1
Mass Range (m/z)		5-1400 amu
Polarity switching		Switch from positive ion mode to negative ion mode in 20 ms
Mass resolution		0.4 amu
Mass accuracy		0.01% or 0.1 Da
Mass stability		< 0.1 u in 48 h
Dynamic range		> 6.0×10^6
Scan rate		12,500 Da/s
Minimum MRM dwell time		1 ms
MRM transitions		500 per second, >40,000 MRMs possible in a method
Collision cell		High-pressure, hexapole with linear acceleration collision cell
Cross-talk		None detectable

Single point of control

Single-point data system method capability with full control of Agilent 1200 Series HPLC systems and 6490A Triple Quadrupole LC/MS System

Time Programming	<ul style="list-style-type: none"> • Polarity changes in time segment • Continuous polarity changes during entire method • Scan and SIM or MRM (plus other modes of data collection) • Dynamic MRM aligns MRMs with compound retention time • Solvent diverts through calibrant delivery valve
Wide range of ionizations sources	<ul style="list-style-type: none"> • Electrospray (ESI) • Multimode source (simultaneous ESI and APCI) • Atmospheric Pressure Chemical Ionization (APCI) • Nanospray with HPLC-Chip Cube MS interface
Autotune	Automated optimization of ion optics and mass axis calibration with Agilent Jet stream Ion focusing technology
Solvent declustering	Agilent Jet Stream Ion Focusing Technology and Countercurrent gas
Detector	High-energy conversion dynode and high-gain electron multiplier horn
Vacuum system	Two turbomolecular pumps with two mechanical pump