



Agilent 6560 Ion Mobility Q-TOF Specifications

Data Sheet



Ion Mobility Q-TOF Mode Specifications

| Parameter | Measure | Specification |
|--|--|------------------|
| Sensitivity, MS mode, electrospray on-column, 200 $\mu\text{L}/\text{min}$ flow rate, max sensitivity mode | 200 fg LC/MS injection of reserpine. Signal for reserpine ($\text{M}+\text{H}$) ⁺ at 609.2807 m/z | < 20% RSD* |
| Drift resolution (native) | Singly charged compound | Greater than 50 |
| Drift resolution (HRdm 2.0) | Singly charged compound | Greater than 200 |
| Collisional cross section accuracy, MS mode | Measured without external standards | < 2% |

* Signal-to-noise (S/N) ratio is not a valid measure of sensitivity, as the Agilent 6560 can separate the reserpine signal completely away from the background noise, creating an infinite S/N calculation. Reproducibility close to the limit of detection is a more appropriate measure.



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Q-TOF Mode Specifications

| Parameter | Measure | Specification |
|--|--|--------------------|
| Sensitivity, MS mode, electrospray on-column, 400 μ L/min flow rate, and max sensitivity mode | 1 pg LC/MS injection of reserpine. S/N for the reserpine (M+H) ⁺ at 609.2807 m/z | 50:1 RMS |
| Sensitivity, MS/MS mode, electrospray on-column, 400 μ L/min flow rate, and max sensitivity mode | 1 pg LC/MS injection of reserpine. S/N for most intense product ions (174, 195, 397, 448 m/z) | 250:1 RMS |
| Mass resolving power | Measured at 2,722 m/z after automatic tuning procedure | > 42,000 |
| Mass accuracy – MS mode, electrospray on-column, 400 μ L/min | Measured at the (M+H) ⁺ ion of reserpine (609.2807 m/z) using an internal mass reference | < 1 ppm RMS |
| Mass accuracy – MS/MS mode, electrospray on-column, 400 μ L/min | Product ion 397 m/z for reserpine | < 2 ppm RMS |
| Dynamic range | Intrascan dynamic range on coeluting components | 10^5 |
| Mass range | | 20 to 20,000 m/z |
| Quadrupole isolation range | | 20 to 4,000 m/z |
| Spectral acquisition rate, MS mode | 50 to 1,700 m/z in MS mode while maintaining a resolution of 40,000 at 1,522 m/z in 4 GHz mode | 50 spectra/second |
| Spectral acquisition rate, MS/MS mode | 50 to 1,700 m/z in MS/MS mode while maintaining a resolution of 30 MS/MS spectra/second of 40,000 at 1,522 m/z in 4 GHz mode | |

All specifications are achieved in manufacturing, and instrument performance data are supplied with shipment. All specification values are achieved after autotune, and do not require manual optimization. These specifications are not standard installation specifications for the Agilent Q-TOF. The Agilent high-resolution accurate mass Q-TOF instruments are tested and installed in accordance with standard performance tests, as described in the Agilent installation manual.

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