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 µL/min flow rate, max sensitivity mode	200 fg LC/MS injection of reserpine. Signal for reserpine $(M+H)^+$ at 609.2807 *m/z*	20 % RSD*
Drift resolution	Single charged compound	Greater than 50
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 µL/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 µL/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 322 *m/z* after automatic tuning procedure Measured at 2,722 *m/z* after automatic tuning procedure	> 42,000 at 2,722 *m/z*
Mass accuracy – MS mode, electrospray on-column, 400 µL/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 µL/min	Product ion 397 *m/z* for reserpine	< 2 ppm RMS
Dynamic range	Intrascan dynamic range on coeluting components	10^5
Mass range		100–10,000 *m/z* extended mass range, 50–1,700 or 100–3,200 *m/z* for both high resolution and extended dynamic range modes, quadrupole up 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 40,000 at 1,522 *m/z* in 4 GHZ mode	30 MS/MS spectra/second

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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