

## Product Comparison

## Agilent Triple Quadrupole LC/MS Portfolio

	 <b>Ultivo B LC/TQ</b> <i>Core Routine</i>	 <b>6475A LC/TQ</b> <i>Core Routine and Research</i>	 <b>6495D LC/TQ</b> <i>High Perf. Routine and Research</i>
	A powerful, surprisingly compact, stackable, and highly serviceable LC/TQ suited for high-throughput and nonstop routine analysis.	A rugged and reliable system for core applications, suited for labs looking for the highest uptime for routine applications.	An ultrahigh sensitivity LC/TQ suited for the most demanding routine analysis or targeted quantitative research applications.
Relative Pricing of Portfolio	\$	\$\$	\$\$\$
Instrument Detection Limit	IDL < 10 fg (+)/10 fg (-)	IDL < 3.5 fg (+)/4 fg (-)	IDL < 0.3 fg (+)/0.3 fg (-)
Mass Range	<i>m/z</i> 5 to 1,400	<i>m/z</i> 5 to 3,000	<i>m/z</i> 5 to 3,000
Dimensions (W × D × H)	39 × 79 × 32 cm	84 × 77.3 × 47.5 cm	91.5 × 77.3 × 47.5 cm
Instrument Performance Specifications			
Signal-to-Noise Ratio (Pos. Reserpine)	– S/N > 350,000:1 – 1 pg on column	– S/N > 850,000:1 – 1 pg on column	– S/N > 6,000,000:1 – 1 pg on column
Signal-to-Noise Ratio (Neg. Chloramphenicol)	– S/N > 350,000:1 – 1 pg on column	– S/N > 850,000:1 – 1 pg on column	– S/N > 6,000,000:1 – 1 pg on column
Mass Scanning Rate	15,000 Da/s	18,700 Da/s	18,700 Da/s
Mass Accuracy	– 0.1 Da from <i>m/z</i> 5 to 1,000 – 0.2 Da from <i>m/z</i> 1,000 to 1,400	– 0.1 Da from <i>m/z</i> 5 to 1,000 – 0.2 Da from <i>m/z</i> 1,000 to 2,000 – 0.3 Da from <i>m/z</i> 2,000 to 3,000	– 0.1 Da from <i>m/z</i> 5 to 1,000 – 0.2 Da from <i>m/z</i> 1,000 to 2,000 – 0.3 Da from <i>m/z</i> 2,000 to 3,000
Quad Resolution (FWHM)	– Unit = 0.7 Da – Wide = 1.2 Da – Widest = 2.5 Da	– Unit = 0.7 Da – Wide = 1.2 Da – Widest = 2.5 Da – Narrow = 0.4 Da ( <i>m/z</i> 5 to 1,500)	– Unit = 0.7 Da – Wide = 1.2 Da – Widest = 2.5 Da – Narrow = 0.4 Da ( <i>m/z</i> 5 to 1,500)
Mass Stability	< 0.1 Da in 24 h		
Minimum MRM Dwell Time	1.0 ms	0.5 ms	0.5 ms
MRM Speed	500 MRM/s	500 MRM/s	700 MRM/s
Maximum MRM Transitions	33,000 MRM/method 500 MRM/segment		
Detector Dynamic Range	> 6 × 10 <sup>6</sup> Six orders of dynamic range from LOD		
Detector HED Modes	Standard: ±10 kV	Standard: –10 kV and +18 kV Large molecule: –20 kV	Standard: –10 kV and +18 kV Large molecule: –20 kV
Signal Sensitivity Adjustment	User-settable Gain Factor from 0.1× to 10× provides a signal boost multiplier using a variable increase in detector voltage regardless of detector age. Example: Gain Factor = 2 results in a 2× signal boost throughout the detector's lifetime.		
Polarity Switching Time	< 20 ms	< 25 ms	< 25 ms
Collision Cell Clearance Time	< 1 ms		

Accessories and Other Features			
	Ultivo B LC/TQ	6475A LC/TQ	6495D LC/TQ
Ion Sources	<ul style="list-style-type: none"> <li>- Agilent Jet Stream technology (AJS)</li> <li>- Electrospray ionization (ESI)</li> <li>- Atmospheric pressure chemical ionization (APCI)</li> <li>- Multimode ionization (MMI): simultaneous APCI and ESI</li> <li>- Agilent nanospray ESI source</li> </ul>		
Acquisition Modes	Full (MS2) scan, product ion scan, precursor ion scan, neutral loss scan, single ion monitoring (SIM), multiple reaction monitoring (MRM), dynamic MRM (dMRM), triggered MRM (tMRM), and mixed mode		
Instrument Intelligence Features	<ul style="list-style-type: none"> <li>- Intelligent reflex workflows for carryover detection, above upper LOQ detection, and fast screening</li> <li>- Method-oriented compound and source optimizer</li> <li>- Intelligent method transfer</li> <li>- Applications-based tuning</li> <li>- Advanced sorting and intelligent polarity switching</li> </ul>		
Maintenance Features	<ul style="list-style-type: none"> <li>- VacShield</li> <li>- Parameter-free autotune and checktune using the SWARM algorithm</li> <li>- Scheduled checktune and autotune</li> <li>- Early maintenance feedback (EMF)</li> <li>- Intelligent Diagnostics Report</li> </ul>		
Roughing Pump	MS 40+ rotary vane pump	MS 40+ rotary vane pump	MS120 rotary vane pump or Edwards nXL200i dry pump (oil-free)

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This information is subject to change without notice.

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