

PRODUCT OVERVIEW

# Aurora<sup>®</sup> Ultimate<sup>™</sup>

25 cm x 75 µm



## The original game-changer.

The pinnacle of chromatography performance while minimising overall cost and stress on equipment. Want it all? With further improved spray stability and increased robustness, Generation 4 Aurora<sup>®</sup> Ultimate<sup>™</sup> continues the legacy of IonOpticks' original 25 cm UHPLC line, delivering maximum peak capacity when time is less of a determining factor, but still a consideration.

### Product Benefits

- + Extreme coverage & sensitivity without excessive time
- + Unlocks the true power of your mass spectrometer

Ideal for:  
a broad range  
of applications

10-40  
SPD

45-120<sub>min</sub>  
Gradients

### Specifications

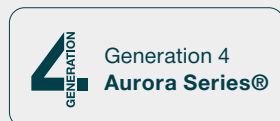
<b>Column format</b>	Analytical column
<b>Column type</b>	Reversed-phase
<b>For use with</b>	UHPLC
<b>Length</b>	25 cm
<b>Inner Diameter</b>	75 µm
<b>Pore size</b>	120 Å
<b>Pressure</b>	>1700 bar
<b>Temp. limits</b>	60°C
<b>Particle size</b>	1.7 µm
<b>pH stability</b>	1-8
<b>Stationary phase</b>	C18
<b>Suggested flow rate</b>	100-400 nL/min (can be varied to suit particular applications)

### Compatibility

	Aurora <sup>®</sup>	Aurora <sup>®</sup> CSI	Aurora <sup>®</sup> XT	Aurora <sup>®</sup> XS
CaptiveSpray		✓		
CaptiveSpray 2		✓		
CaptiveSpray Ultra		✓		
EASY-Spray			✓	
Nanospray Flex	✓		✓	
Newomics UniESI			✓	
Newomics DuoESI			✓	
OptiFlow Turbo V				✓
OptiFlow Pro				✓



Introducing the HeatSync<sup>™</sup> range - the perfect companion to make the world's best chromatography even better. Includes the new HeatSync<sup>™</sup> Controller and HeatSync<sup>™</sup> Column Heater.



**Ion Opticks Pty Ltd**  
 ABN: 99 621 674 459  
 12 Gipps St  
 Collingwood VIC 3066  
 Australia

[www.ionopticks.com](http://www.ionopticks.com)

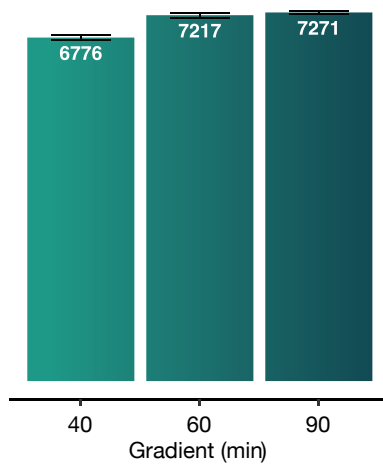
## Spectacular protein IDs. Every run. Every time.

### Deep proteome coverage.

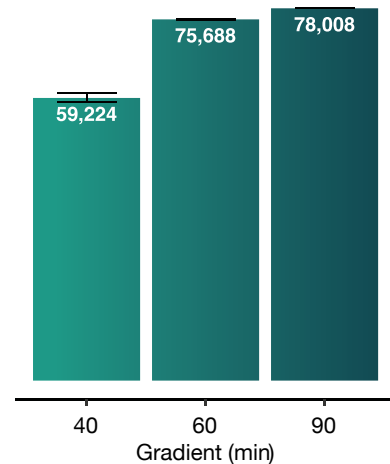
Maximise the number of identifications you can achieve from a single shot sample analysis.

**Figures 1, 2 & 3:** Identified unique proteins, peptides and average Full Width at Half Maximum (FWHM) from 200 ng HeLa Tryptic Digest injection on an Aurora® Ultimate™ 25 cm x 75 µm column using different gradient lengths. Samples were run on a Waters ACQUITY UPLC M-Class coupled to a Bruker timsTOF Pro, dia-PASEF acquisition. Data analysed using DIA-NN.

**Figure 1**  
7000+ Unique Protein IDs



**Figure 2**  
70,000+ Unique Peptide IDs



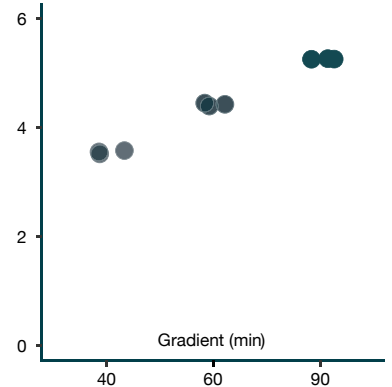
## High quantitative accuracy.

### Identify large numbers of unique proteins without compromising quantitative accuracy.

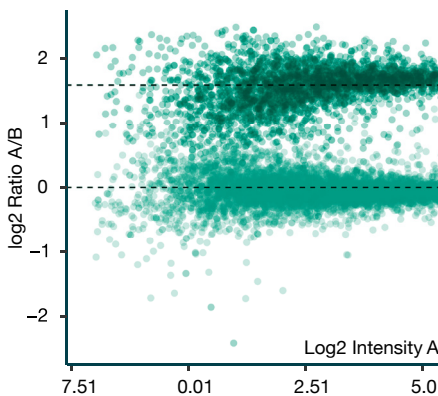
**Figure 4:** Yeast tryptic digest was spiked into a HeLa tryptic digest (200 ng) in different ratios (Sample A - 45 ng; Sample B - 15 ng). Samples were run on a Waters ACQUITY UPLC M-Class coupled to a Bruker timsTOF Pro, dia-PASEF acquisition using an Aurora® 25 cm x 75 µm column. Data analysed using DIA-NN. Each point represents a unique protein with ratios calculated between the A and B samples.

**Figure 5:** Boxplot demonstrating average ratio and interquartile range of data. Expected ratios are indicated with dashed lines.

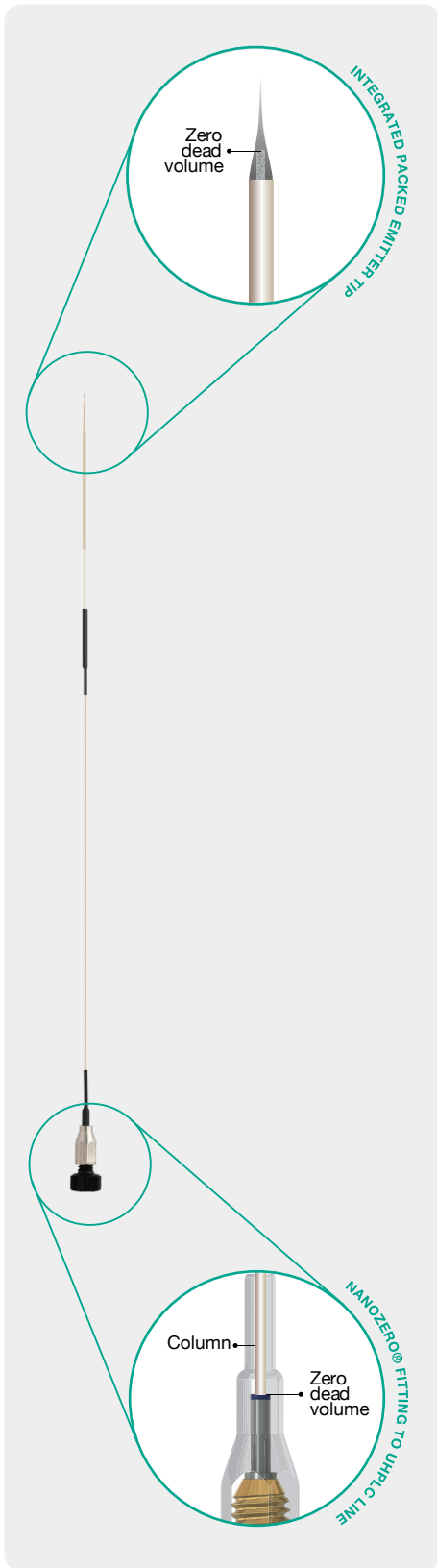
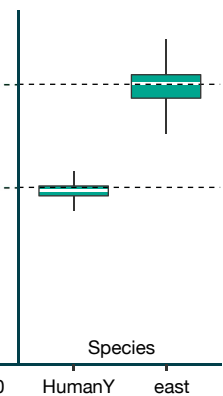
**Figure 3**  
Peak Width FWHM (Sec)



**Figure 4**



**Figure 5**



Further literature at:  
[ionopticks.com](http://ionopticks.com)  
**ionopticks**