Supporting Information

Top-Down Analysis of In-Source HDX of Native Protein Ions

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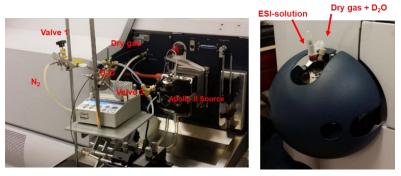


Figure S1. Pictures and Schematic of modified gas inlet system.

	[M+6H] ⁶⁺	[M+8H] ⁸⁺	[M+11H] ¹¹⁺
Control	1/100 1/400 (0001)	100 min 100 mi	787 788 782 5065 779 780 781 782 5065 781 5062
1.5 L/min	+11 Da	+17 Da	+14 Da
2.0 L/min	+11 Da	+17 Da	+13 Da
2.5 L/min	+12 Da	+17 Da	+12.Da
3.0 L/min	+10 Da	+15 Da	+10 Da
4.0 L/min	+7 Da	+11 Da	+7 Da
5.0 L/min	+8 Da	+13 Da	+9 Da
6.0 L/min	+7 Da	+10 Da	+8,Da
7.0 L/min	+6 Da	+10 Da	+7 Da

Figure S2. Effect of dry gas (N₂) flow rate on HDX of ubiquitin.

	[M+6H] ⁶⁺	[M+8H] ⁸⁺	[M+11H] ¹¹⁺
Control	1428-7105	1071,7663	779 7293
50 °C	+13 Da	1074 0448 +18 Da	781 0167 + 14 Da
100 °C	1430.4722 +11 Da	1074.3710 +21 Da	780 9025 +13 Da
150 °C	+11 Da	+18 Da	779 1837 779 1837
180 °C	+13 Da	1074.3956 +21 Da	^{700 9154} +13 Da
200 °C	+10 Da	1073.0134 +17 Da	779.2012 779.2012 +13 Da
250 °C	+13 Da	+16 Da	+11 Da
300 °C	1431 2588 + 15 Da	+ 15 Da	+11 Da
350 °C	+141 Da	+15 Da	780 5819 +9 Da

Figure S3. Effect of dry gas (N_2) temperature on HDX of ubiquitin.

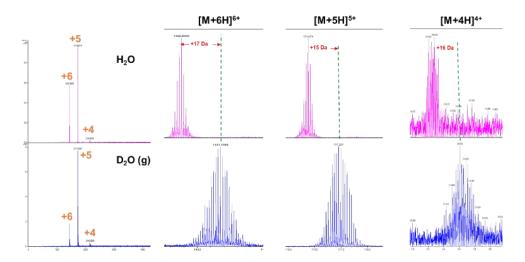


Figure S4. Deuterium uptake as a function of charge state of native ubiquitin ions. There is no difference in solvent accessibility of different charge states of native ubiquitin.