

Supporting Information

Guanine O^6 and Thymine O^4 Phosphitylation in Oligonucleotide Synthesis

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LCMS data of ODNs

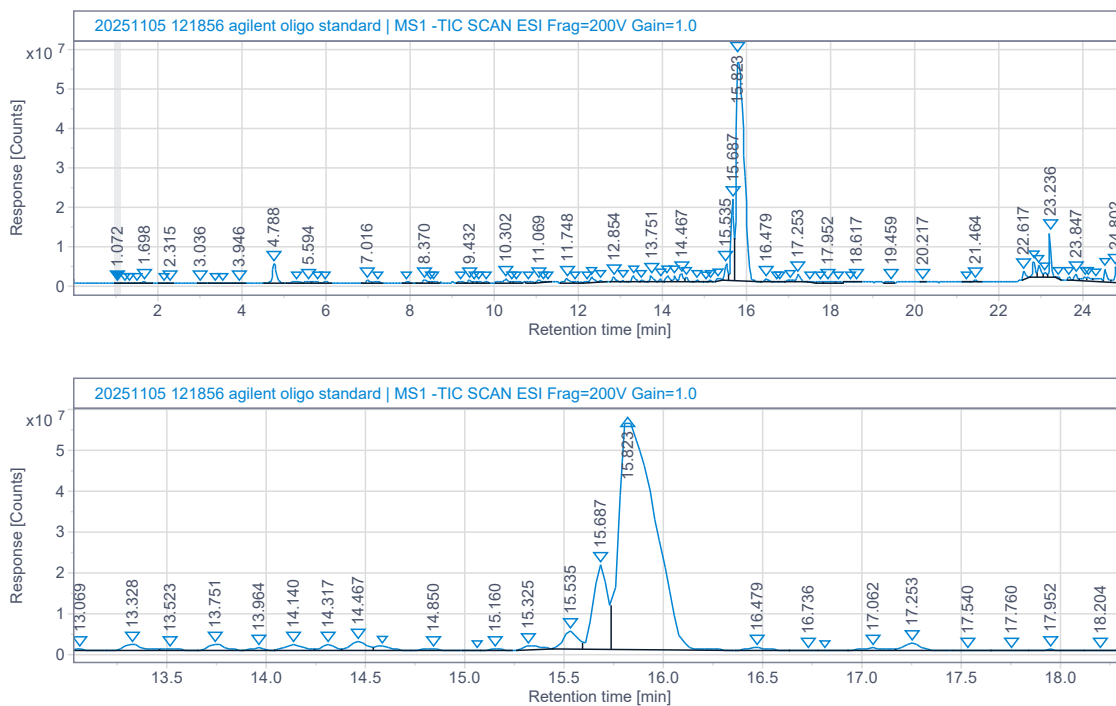


Figure S1. LC profile of crude ODN **1a**. The ODN was subjected to 0 post-synthesis coupling-oxidation (PSCO) cycles. Top, full chromatogram. Bottom, expanded view.

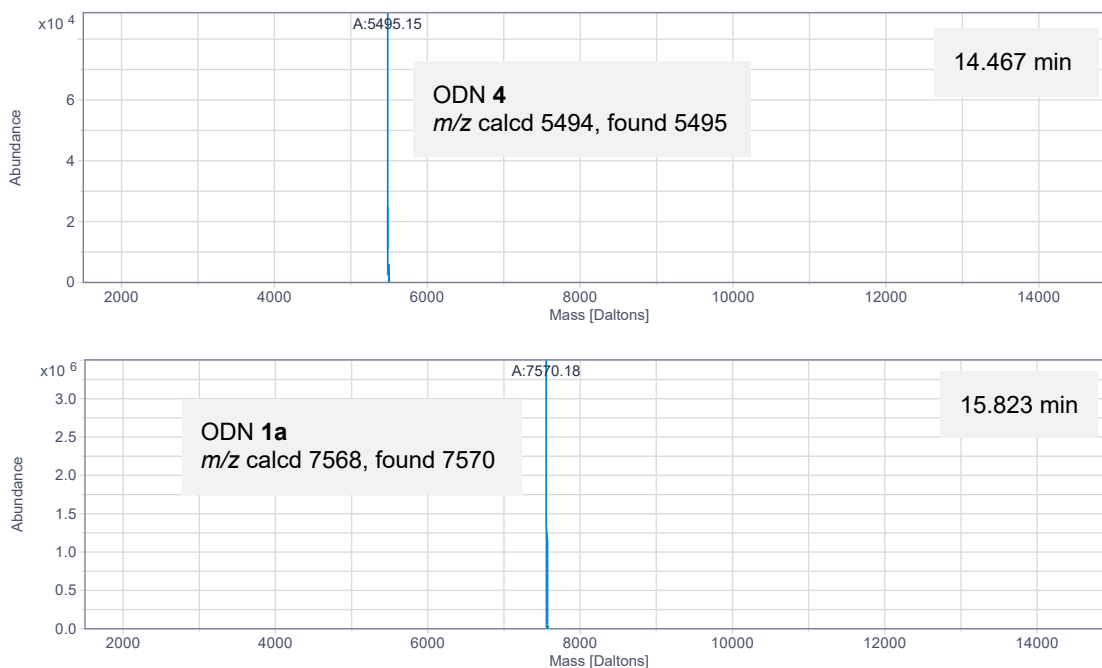


Figure S2. MS of peaks at 14.467 min and 15.823 min in Figure S1. All calculated molecular masses are isotopic average masses, which are closer to the observed masses because the latter were obtained using a low resolution mass spectrometer, and the deconvolution process employs centroid (isotopic average) masses of individual charge states.

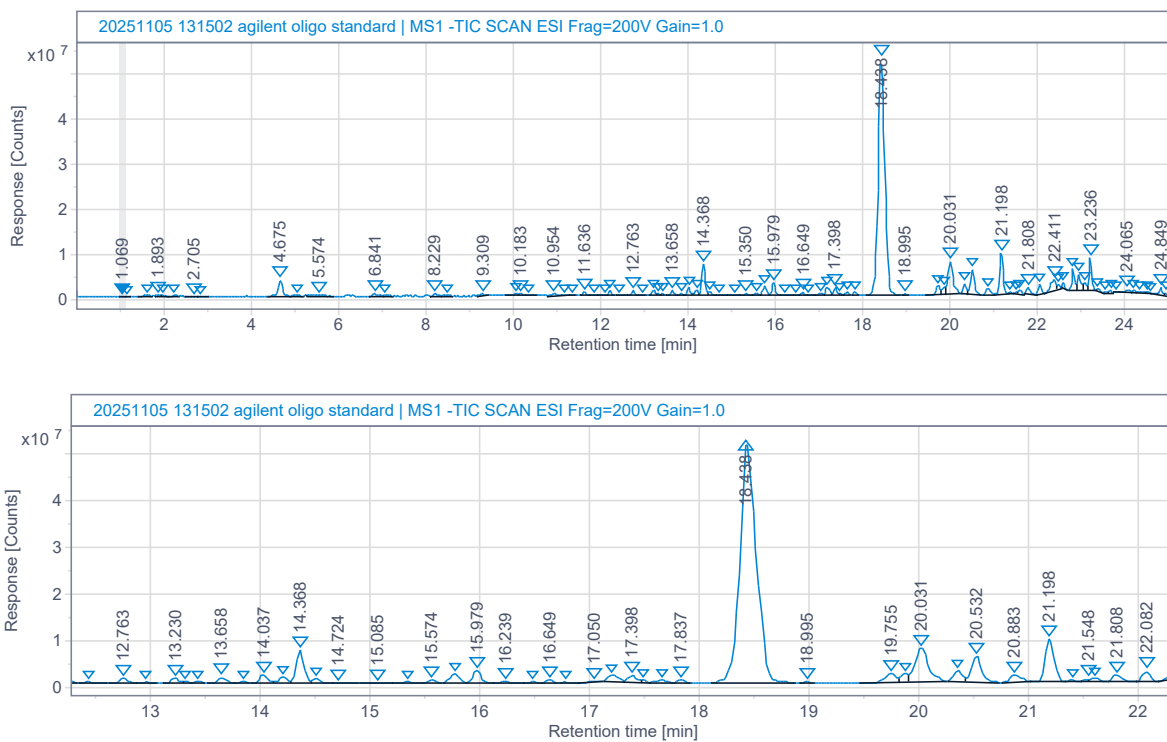


Figure S3. LC profile of crude ODN **1b**. The ODN was subjected to 50 PSCO cycles. Top, full chromatogram. Bottom, expanded view.

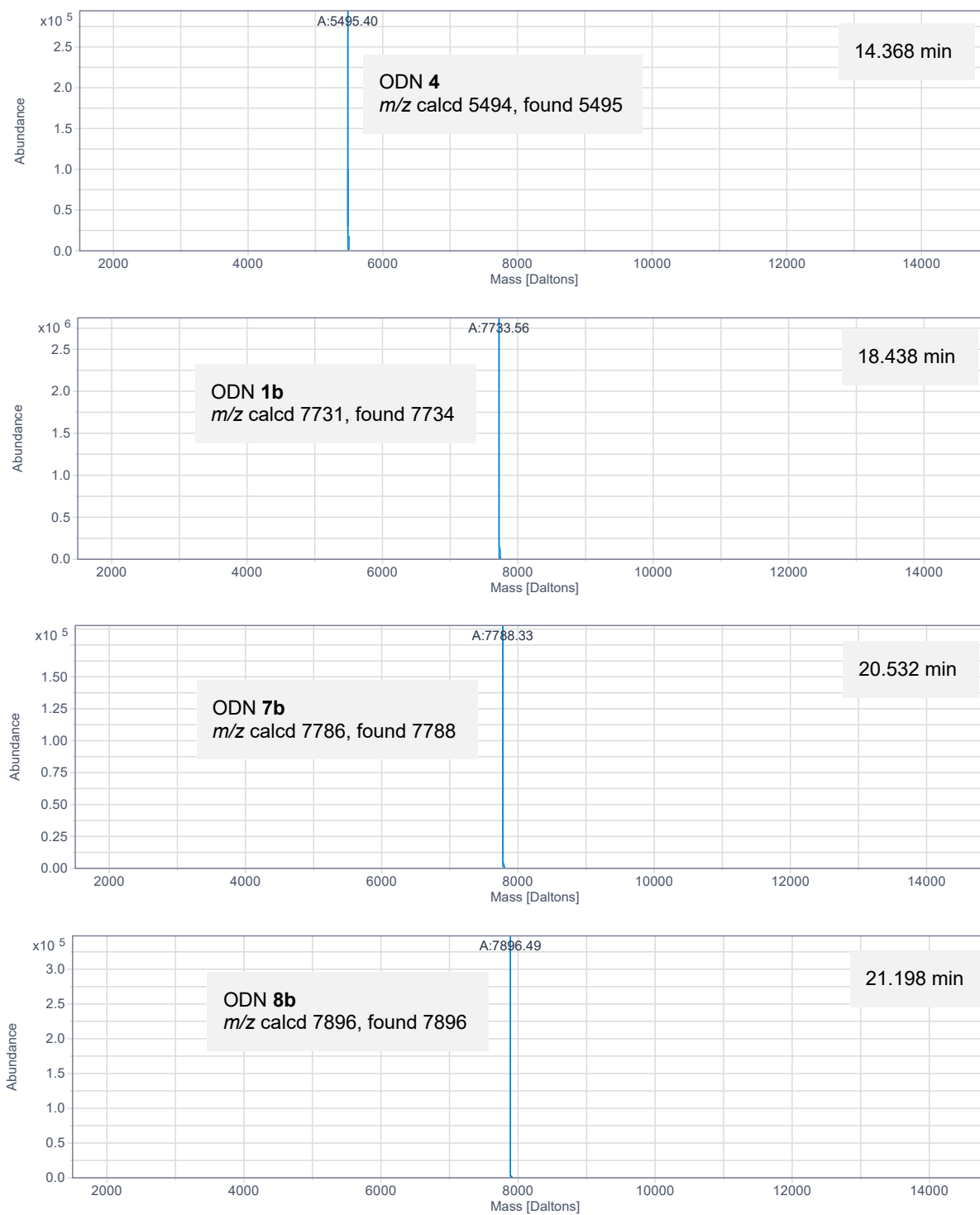


Figure S4. MS of peaks at 14.368 min, 18.438 min, 20.532 min and 21.198 min in Figure S3.

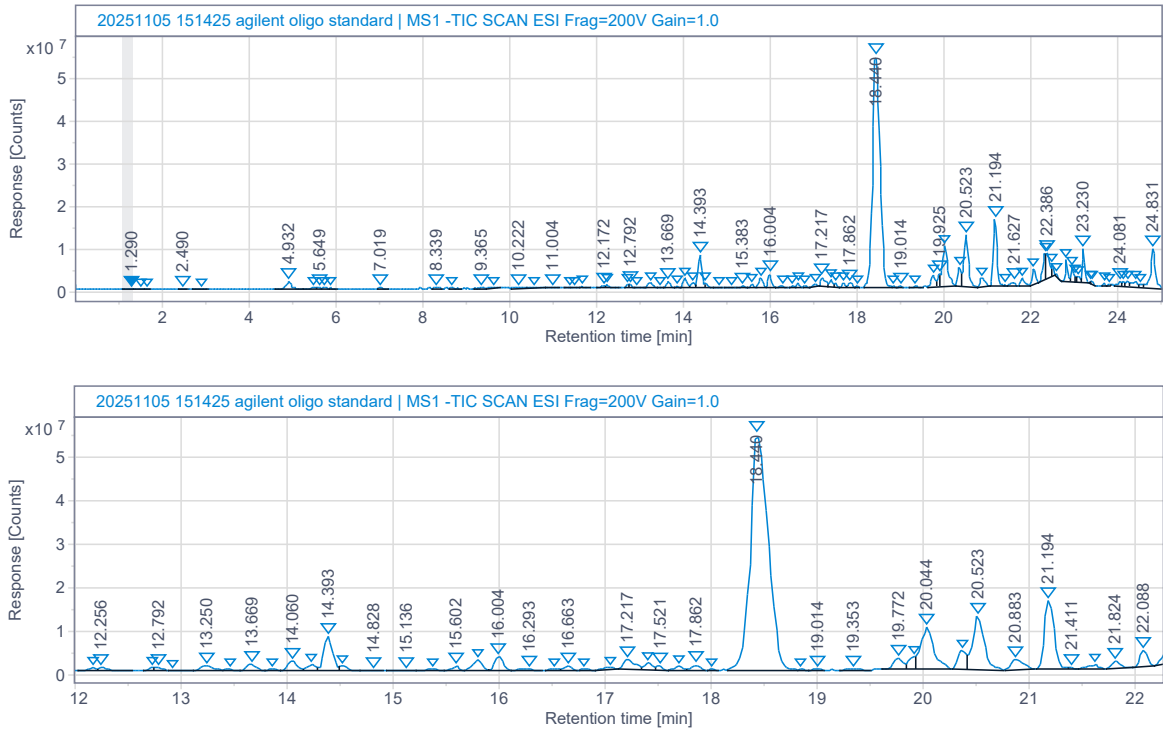


Figure S5. LC profile of crude ODN **1b**. The ODN was subjected to 100 PSCO cycles. Top, full chromatogram. Bottom, expanded view.

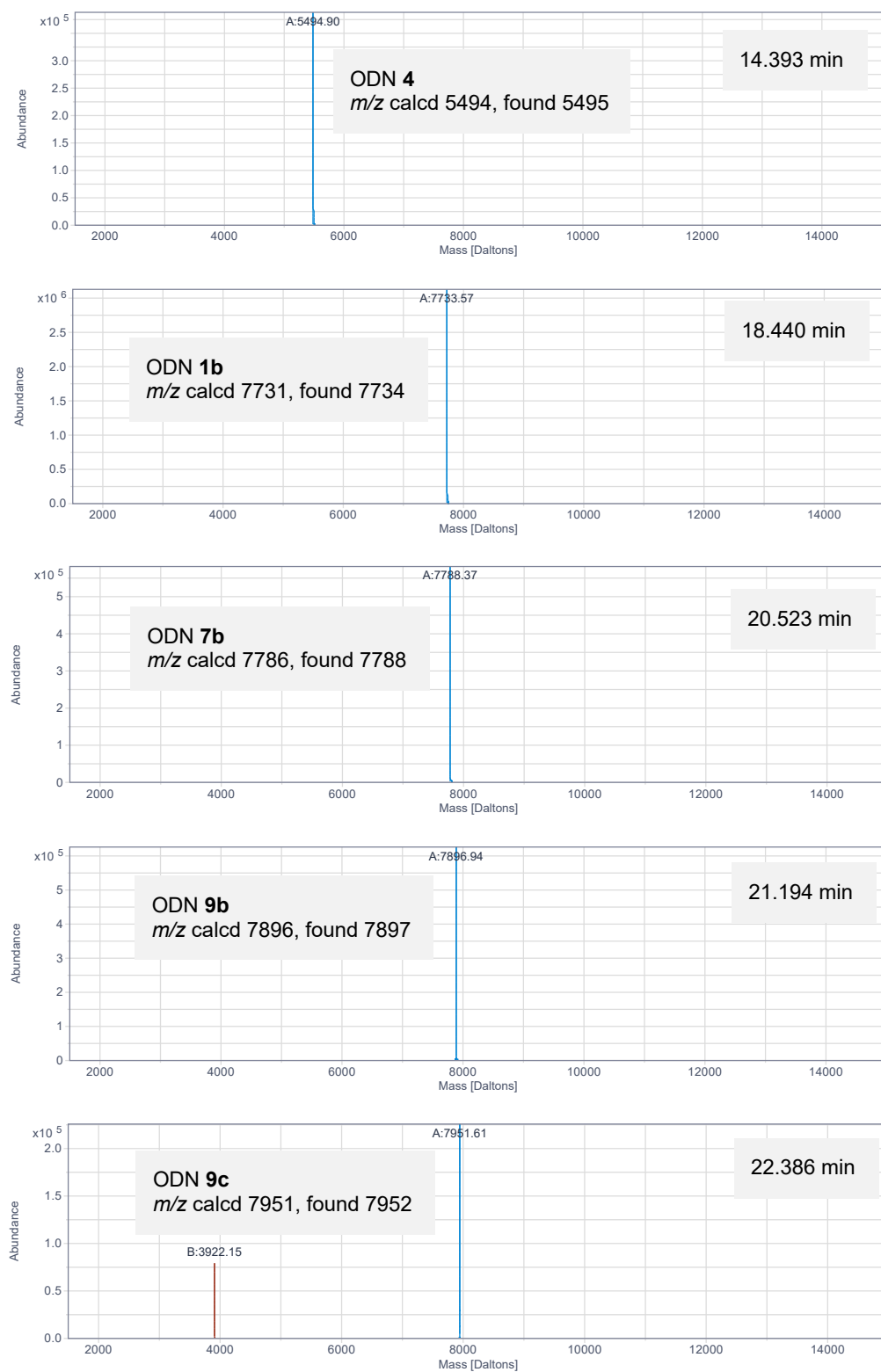


Figure S6. MS of peaks at 14.393 min, 18.440 min, 20.523 min, 21.194 min and 22.386 min in Figure S5.

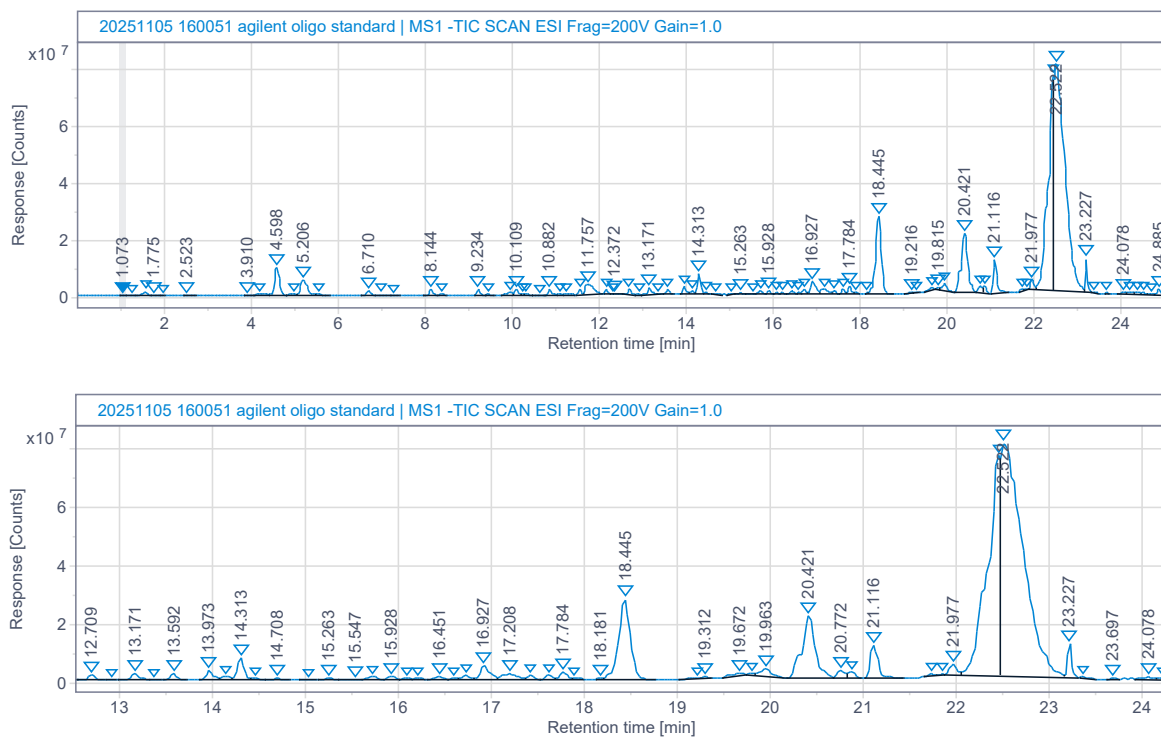


Figure S7. LC profile of crude ODN **1b**. The ODN was subjected to 200 PSCO cycles. Top, full chromatogram. Bottom, expanded view.

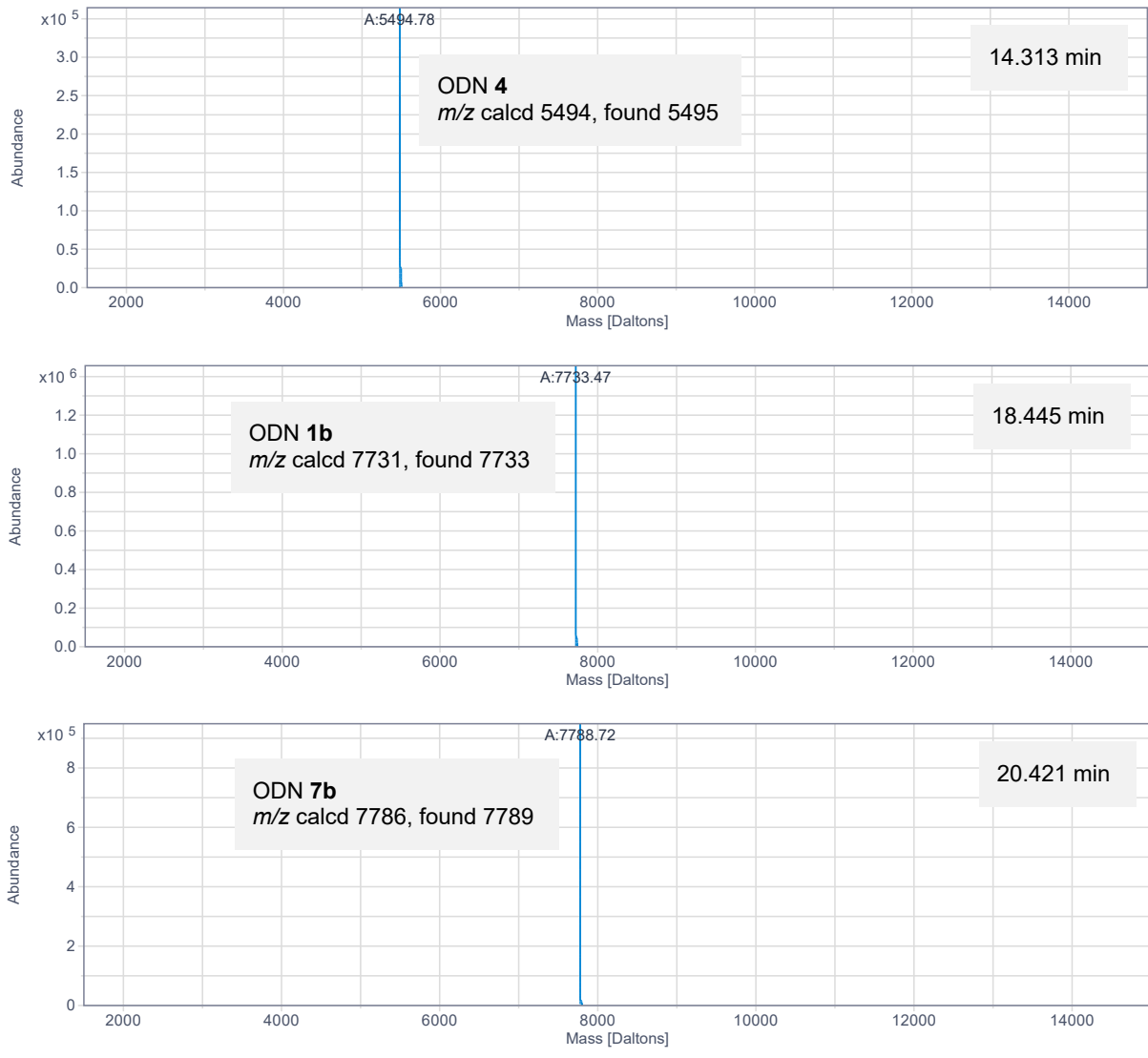
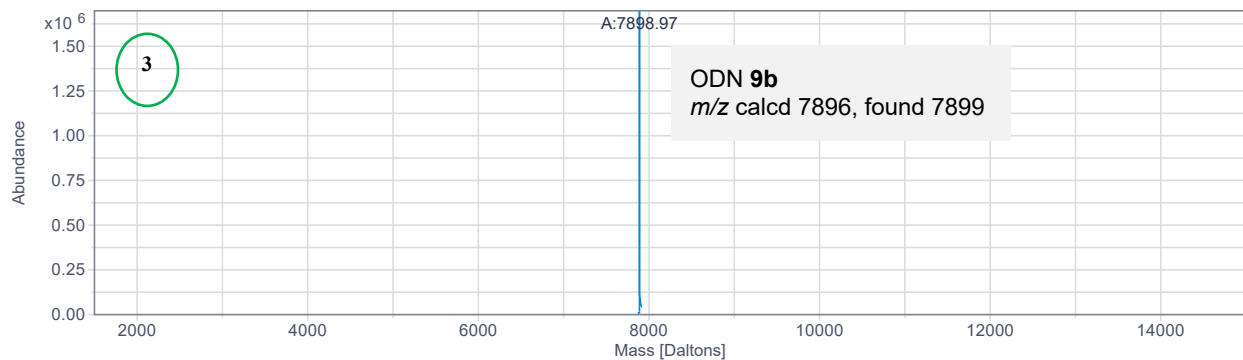
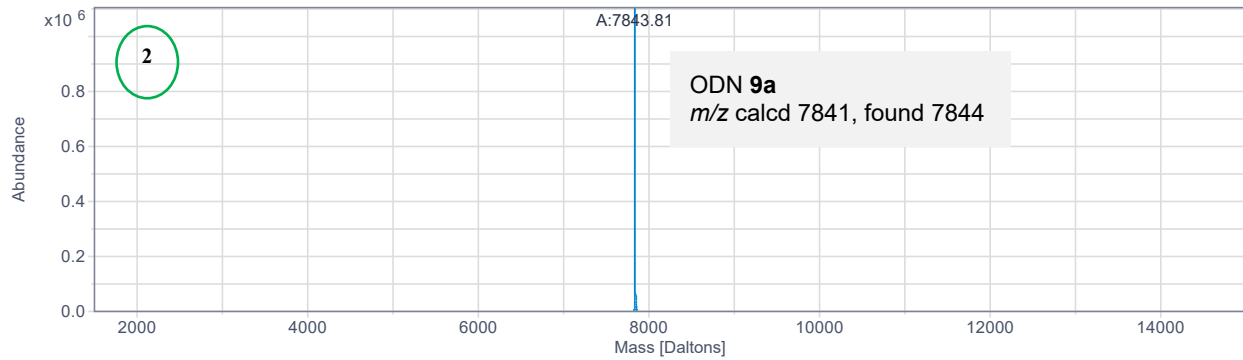
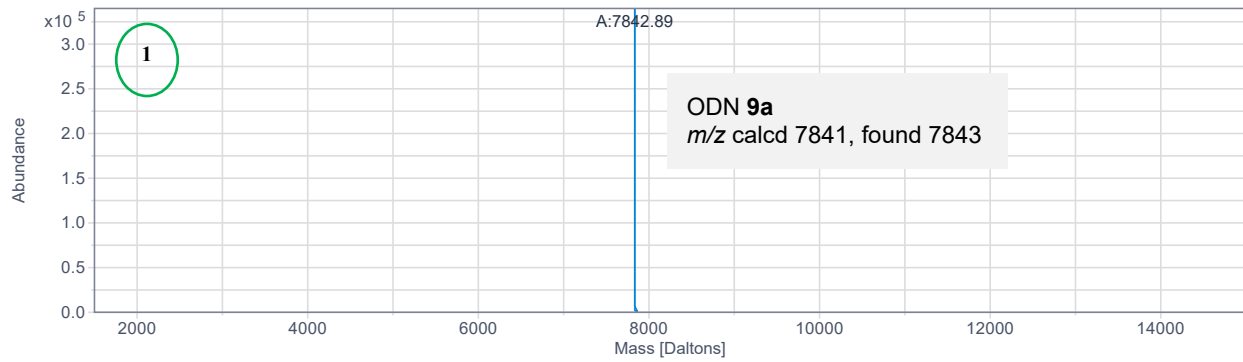
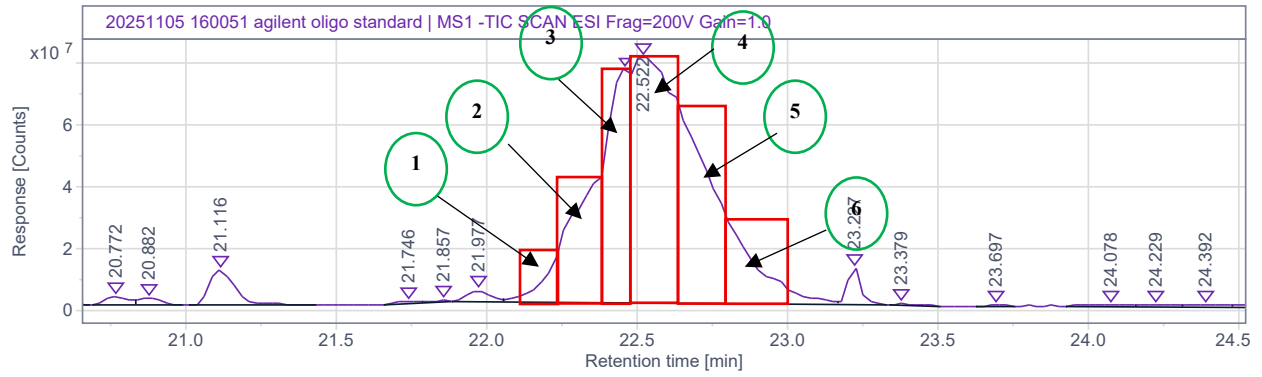


Figure S8. MS of peaks at 14.313 min, 18.445 min and 20.421 min in Figure S7.



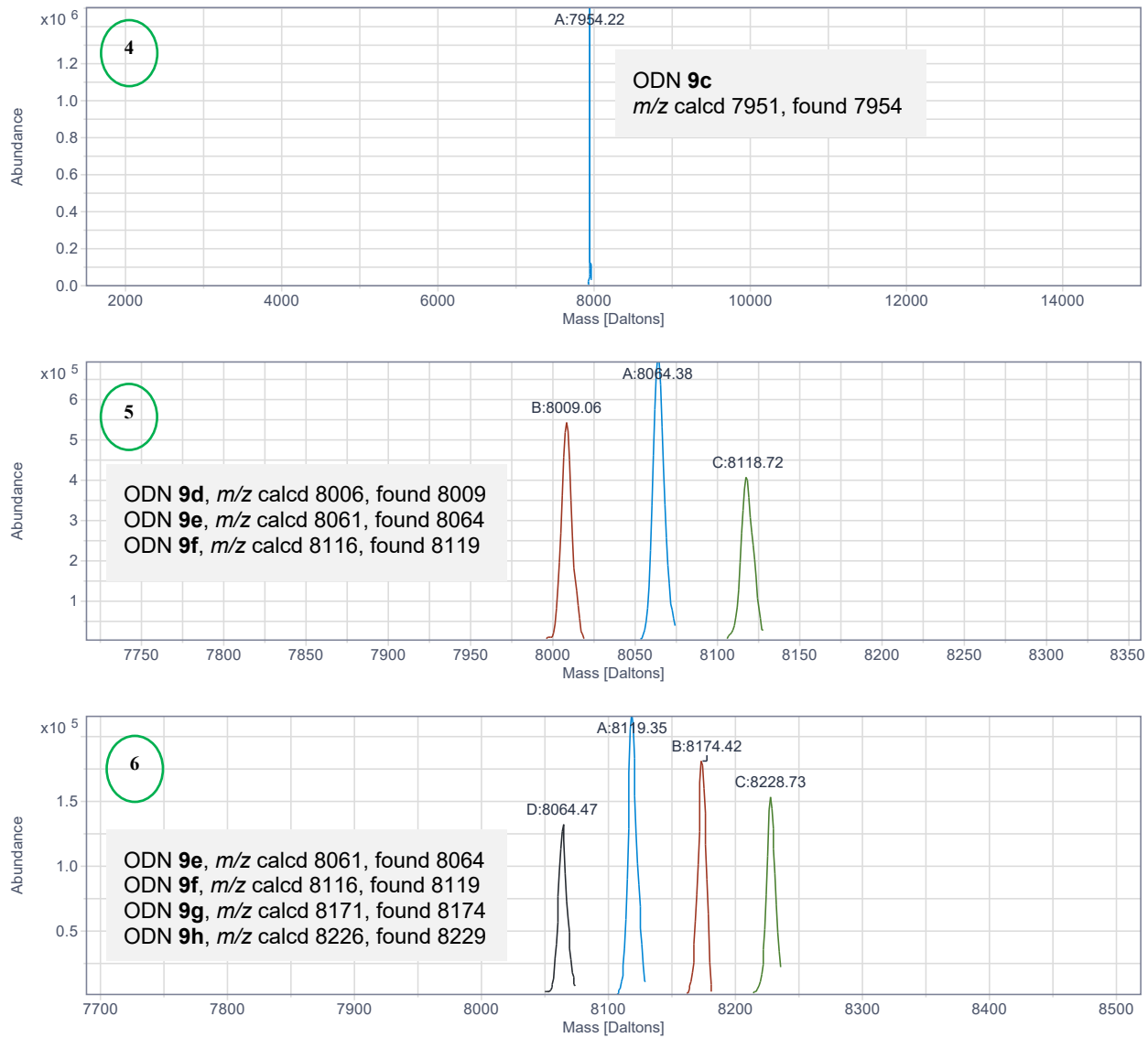


Figure S9. MS of the broad peak at 22-23 min in Figure S7.