

Supplementary Data

Harnessing Oligonucleotide Architecture for Potent Multivalent Inhibition of Human Carbonic Anhydrases

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Table 1: MALDI-TOF analysis, retention times, and yields for the synthesized oligonucleotides (1–5)

Compound	Oligonucleotide Sequence	Calc <i>m/z</i> (-)	Found <i>m/z</i> (-)	Tr ^a (min)	Yield (%)
1	5'-GCC AGC UGA CCG-3'	3670	3671	12.65	73
2	5'-GCU AGC UGA CCG-3'	3725	3726	11.23	52
3	5'-GCU AGC TGA UCG-3'	3740	3741	12.13	57
4	5'-GCU AGC UGA UCG-3'	3780	3781	11.36	55
5	5'-GCU AUC UGA UCG-3'	3797	3796	11.86	55

Table 2: MALDI analysis, retention time, and , yield% for the synthesized oligonucleotide conjugates. (10-26).

Compounds	Calc <i>m/z</i> (-)	Found <i>m/z</i> (-)	Tr ^[a] (min)	Yield(%)
10	3915	3916	12.682	51.4
11	3896	3898	12.810	63.4
12	3868	3868	13.77	56
13	3868	3868	13.51	73
14	4215	4215	14.457	37.8
15	4177	4179	13.203	95.6
16	4124	4124	12.49	60
17	4230	4231	15.45	66.4
18	4193	4193	13.34	70.3
19	4137	4138	13.91	56
20	4137	4136	14.07	54
21	4516	4516	16.005	64.2
22	4459	4460	13.510	31.1
23	4375	4376	13.05	61
24	4776	4777	17.577	50.0
25	4700	4701	14.533	15.4
26	3805	3804	11.78	55

[a] Gradient: 1% acetonitrile to 24% acetonitrile in 50 mm TEAAc, 20 min, gradient

Chromatography HPLC-C18 & MALDI-TOF mass of modified oligonucleotide sequences

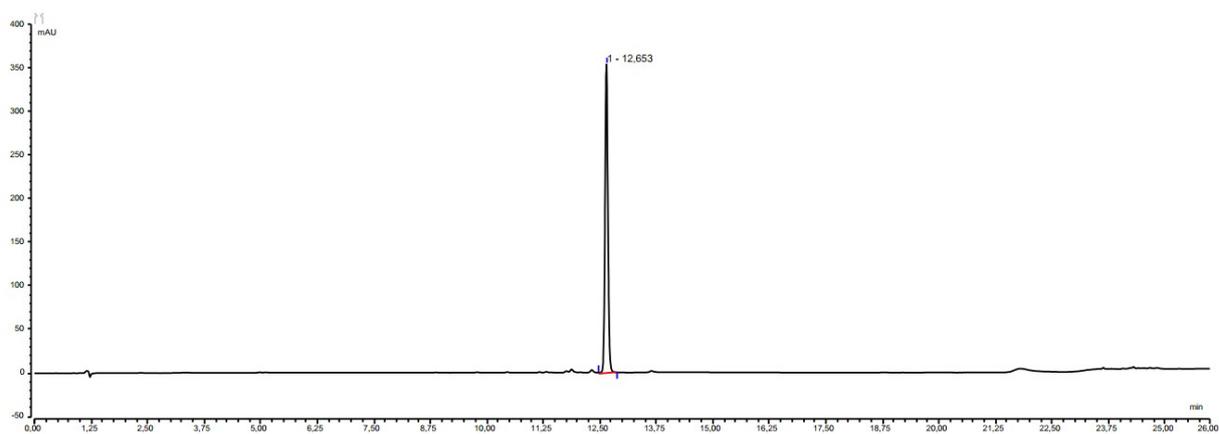


Figure S1. HPLC-C18 of 1

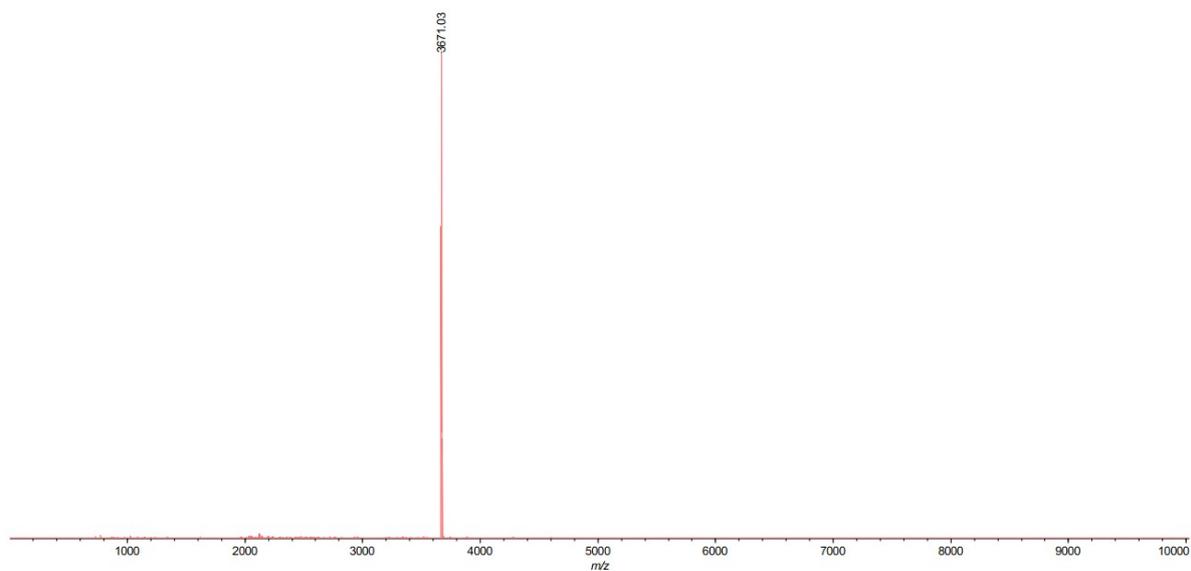


Figure S2. MALDI-TOF mass of 1

Supplementary Data

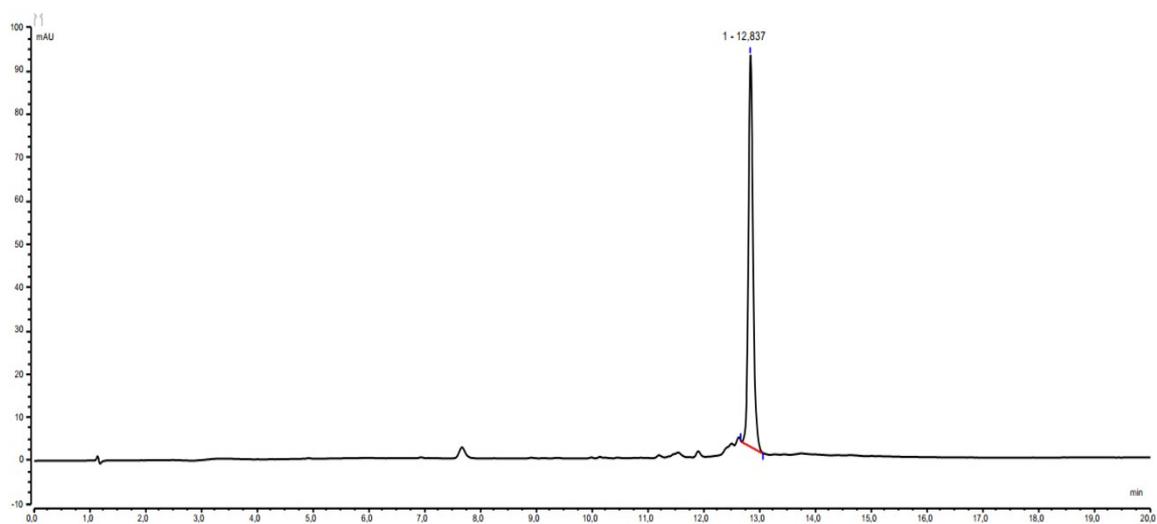


Figure S3. HPLC-C18 of 2

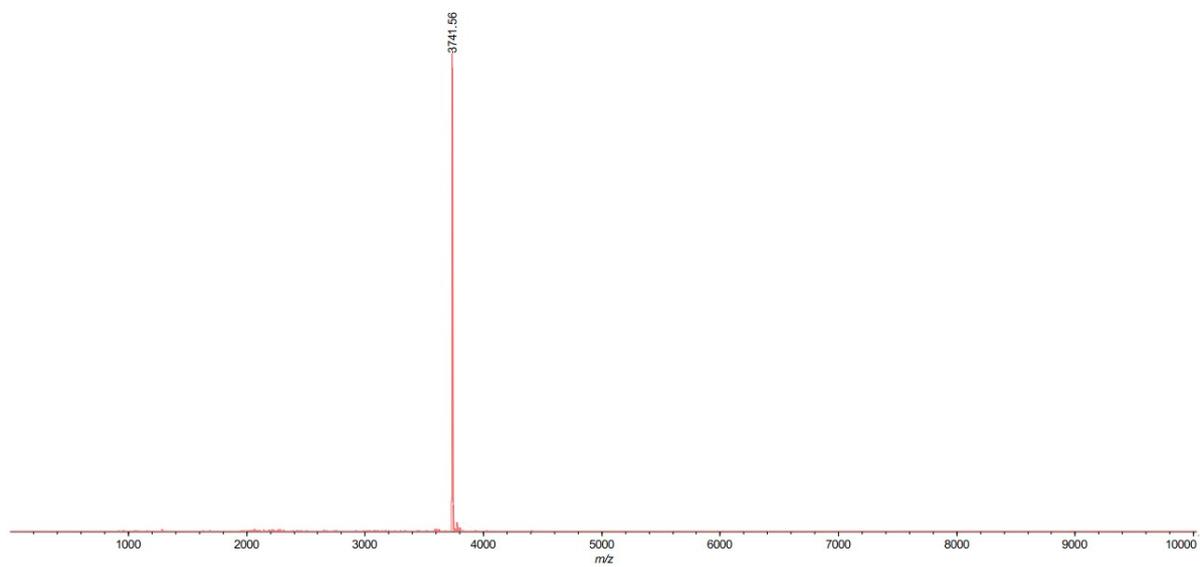


Figure S4. MALDI-TOF mass of 2

Supplementary Data

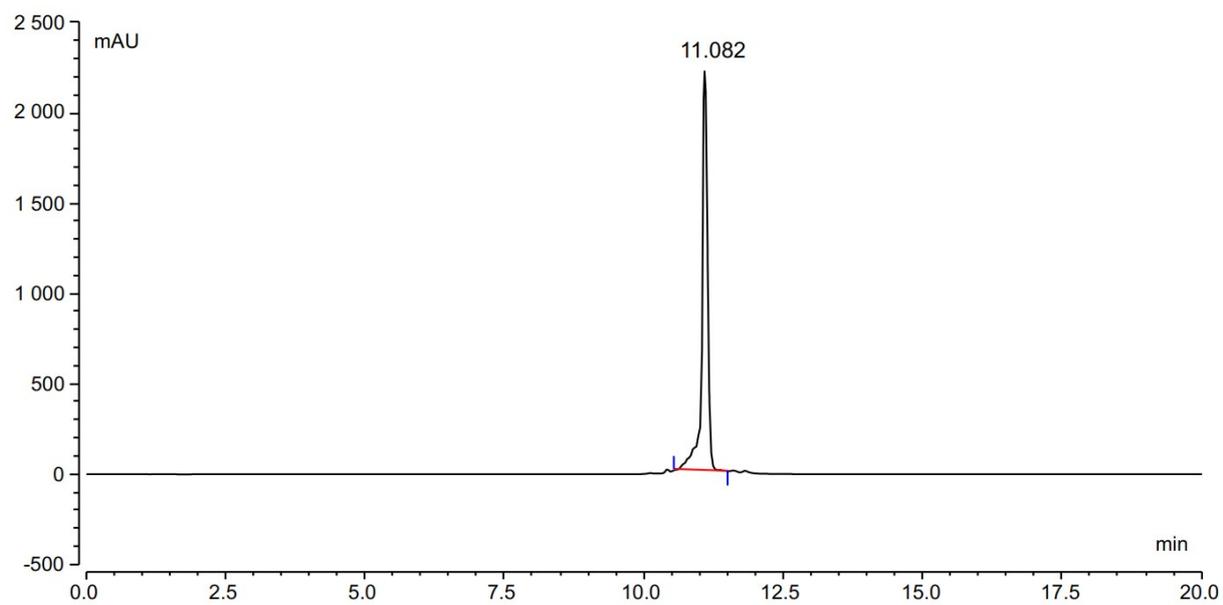


Figure S5. HPLC-C18 of 3

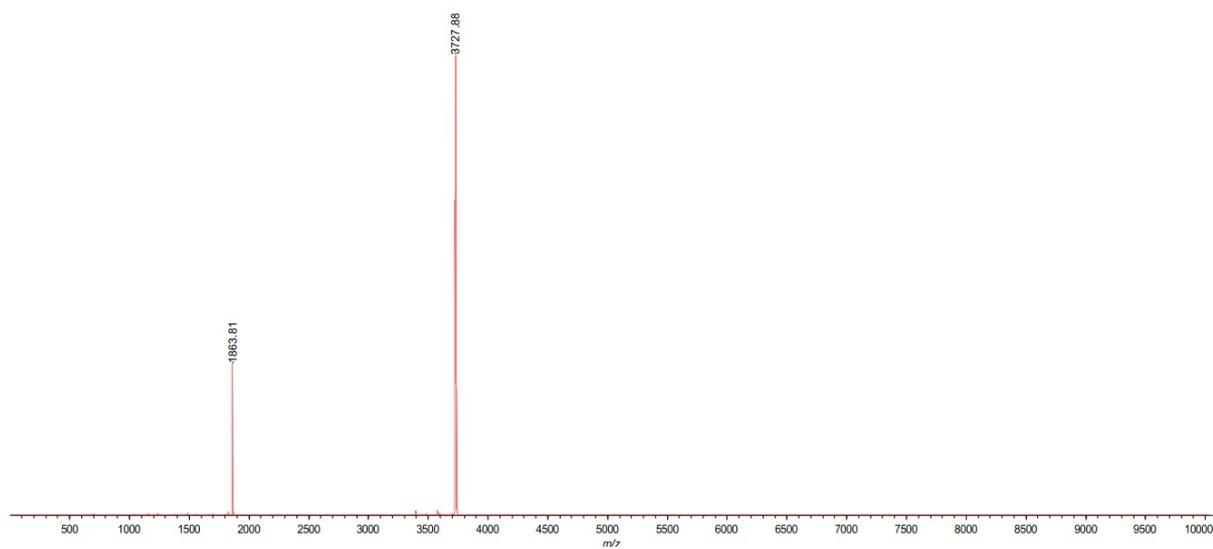


Figure S6. MALDI-TOF mass of 3

Supplementary Data

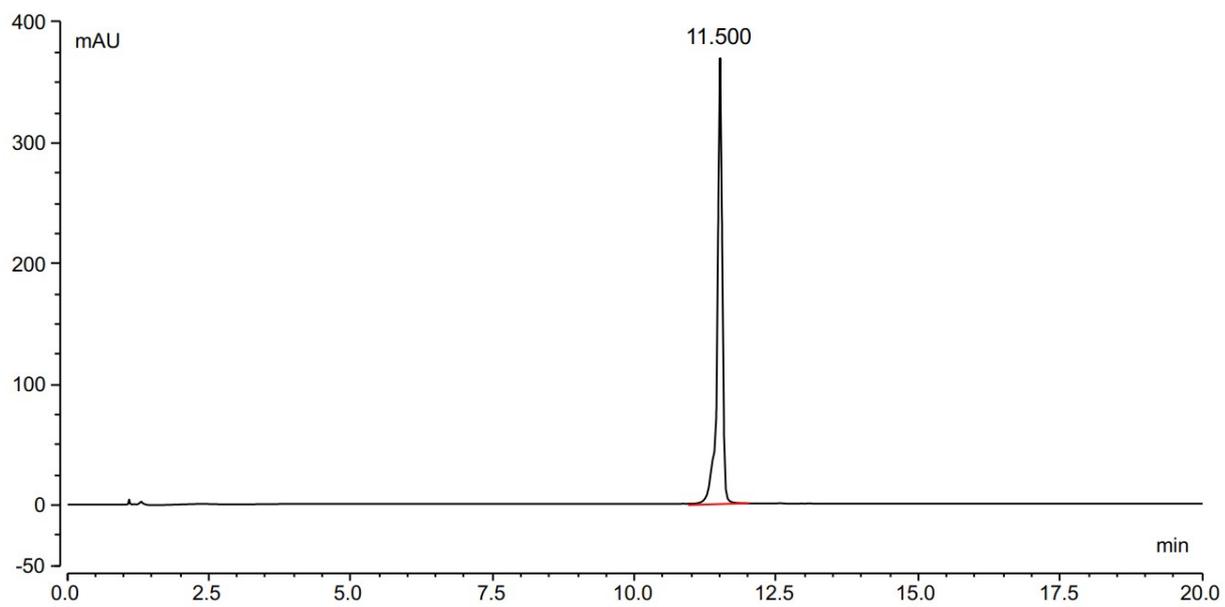


Figure S7. HPLC-C18 of 4

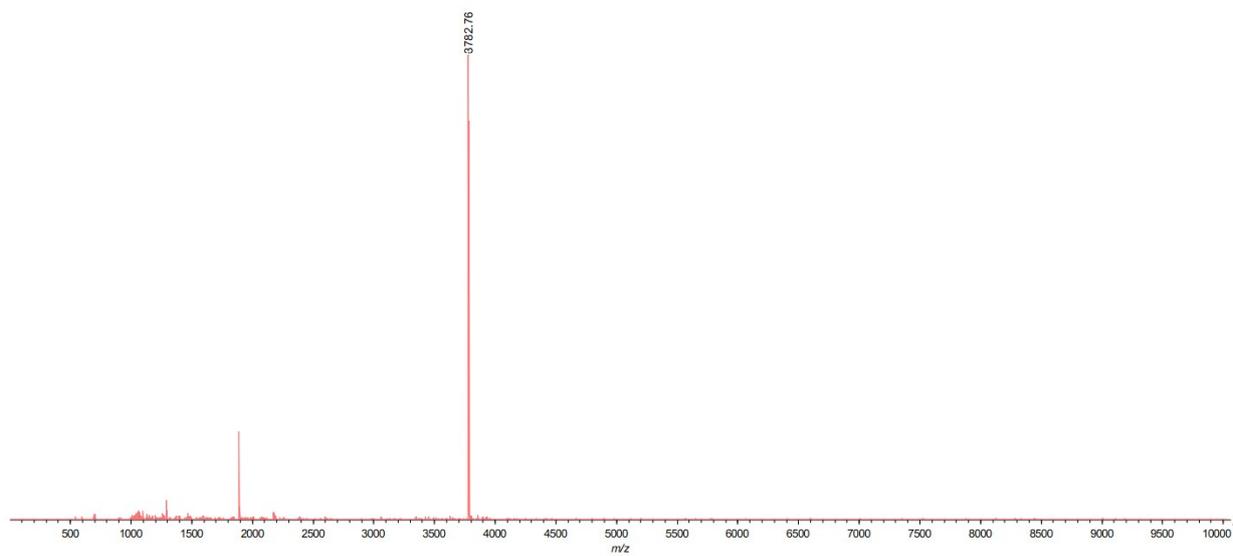


Figure S8. MALDI-TOF mass of 4

Supplementary Data

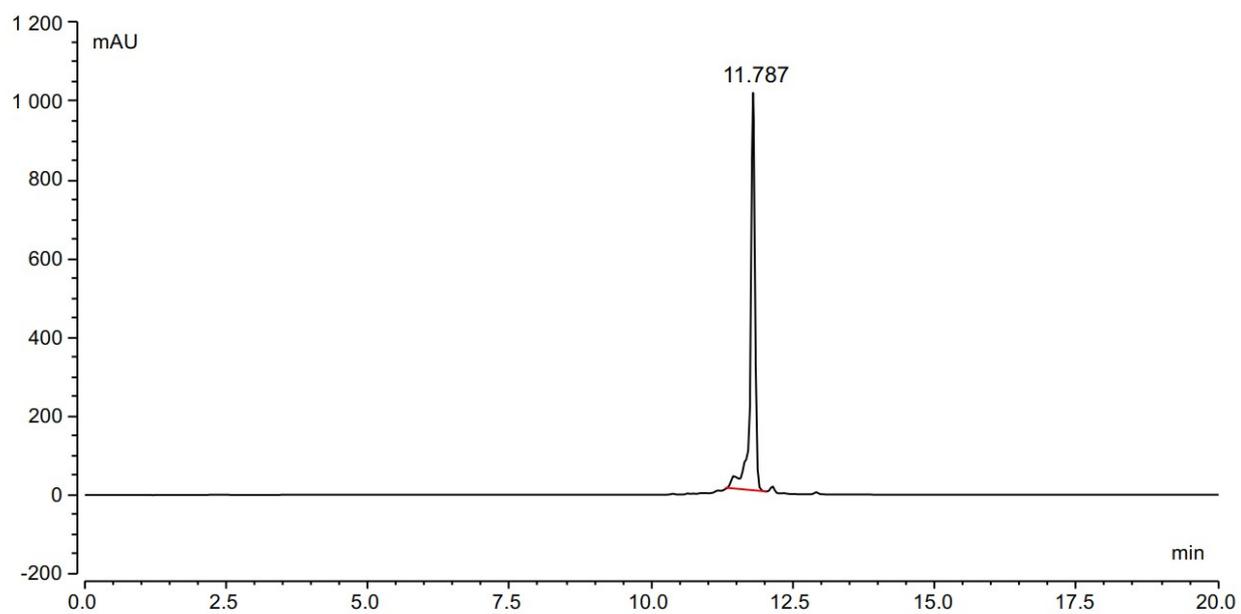


Figure S9. HPLC-C18 of **5**

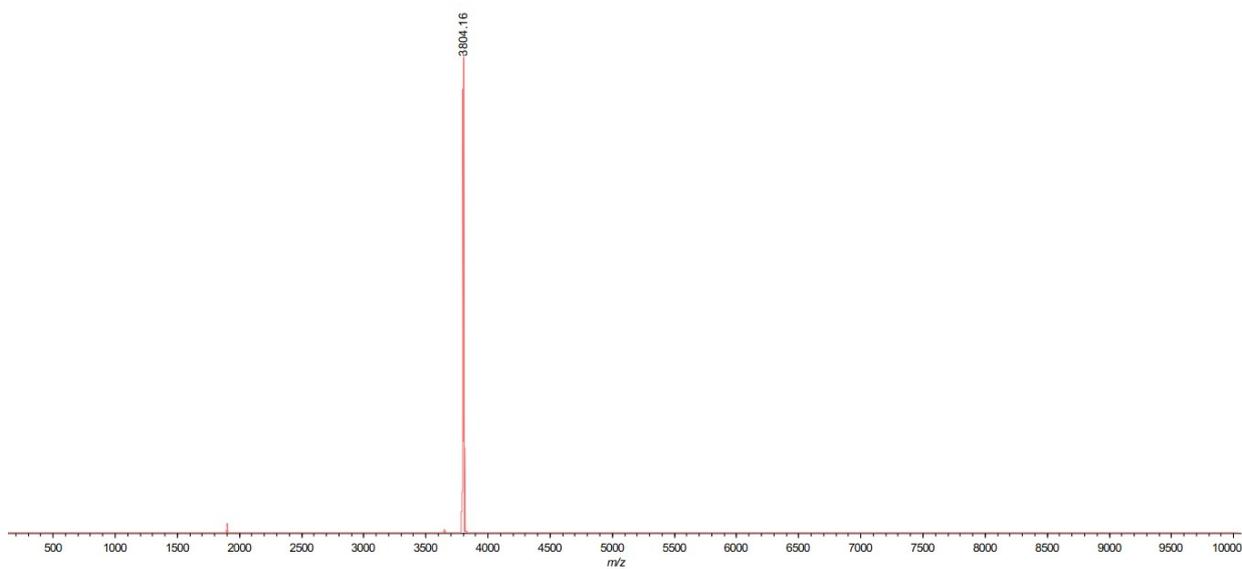


Figure S10. MALDI-TOF mass of **5**

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Chromatography HPLC-C18 & MALDI-TOF mass of clicked oligonucleotide sequences

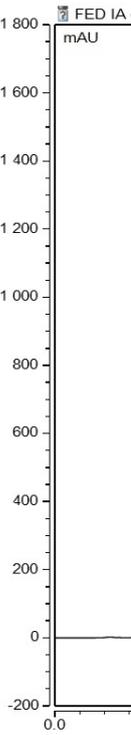


Figure S11. HPLC-C18 of **10**

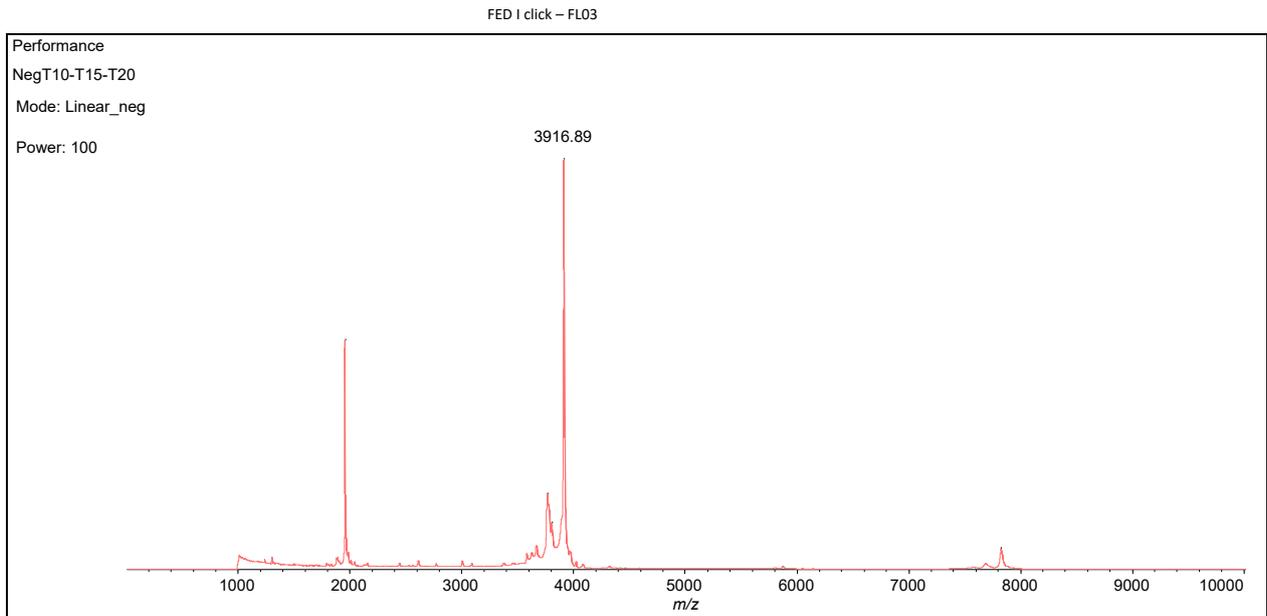


Figure S12. MALDI-TOF mass of **10**

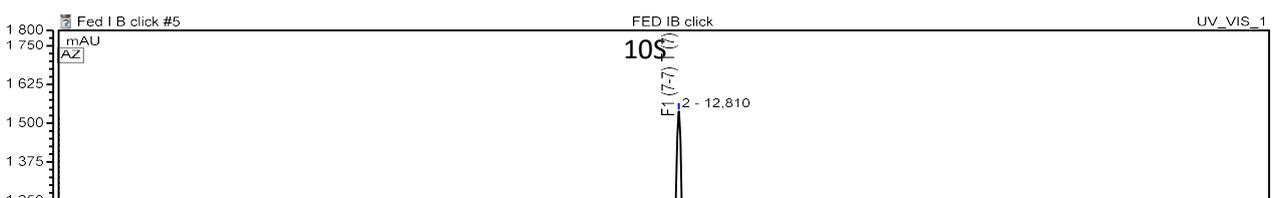


Figure S13. HPLC-C18 of 11

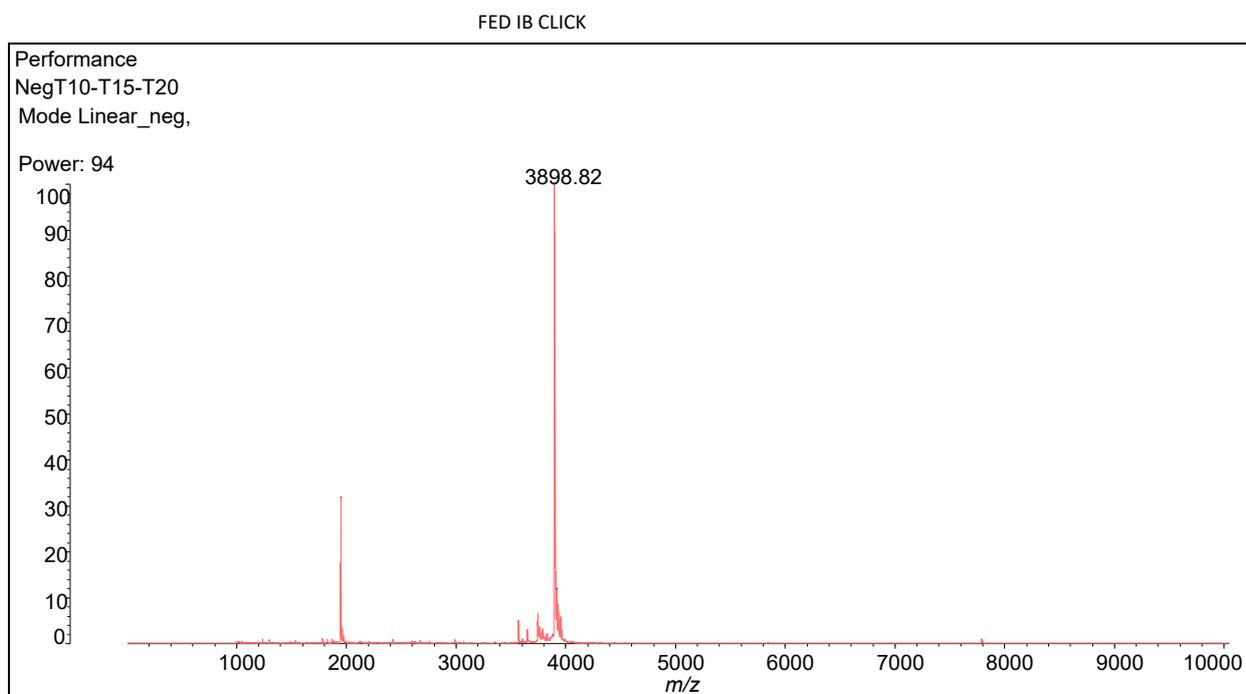


Figure S14. MALDI-TOF mass of 11

Supplementary Data

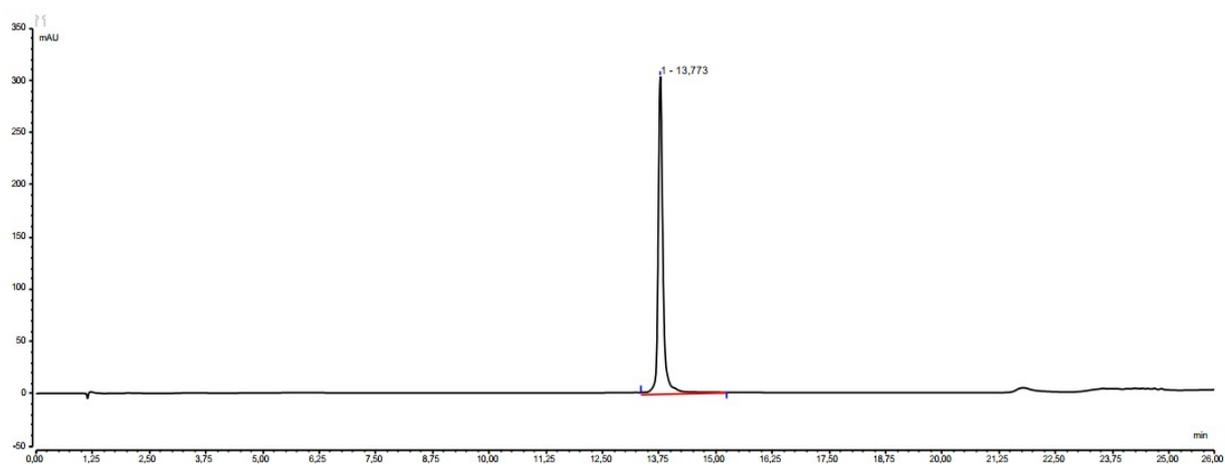


Figure S15. HPLC-C18 of 12

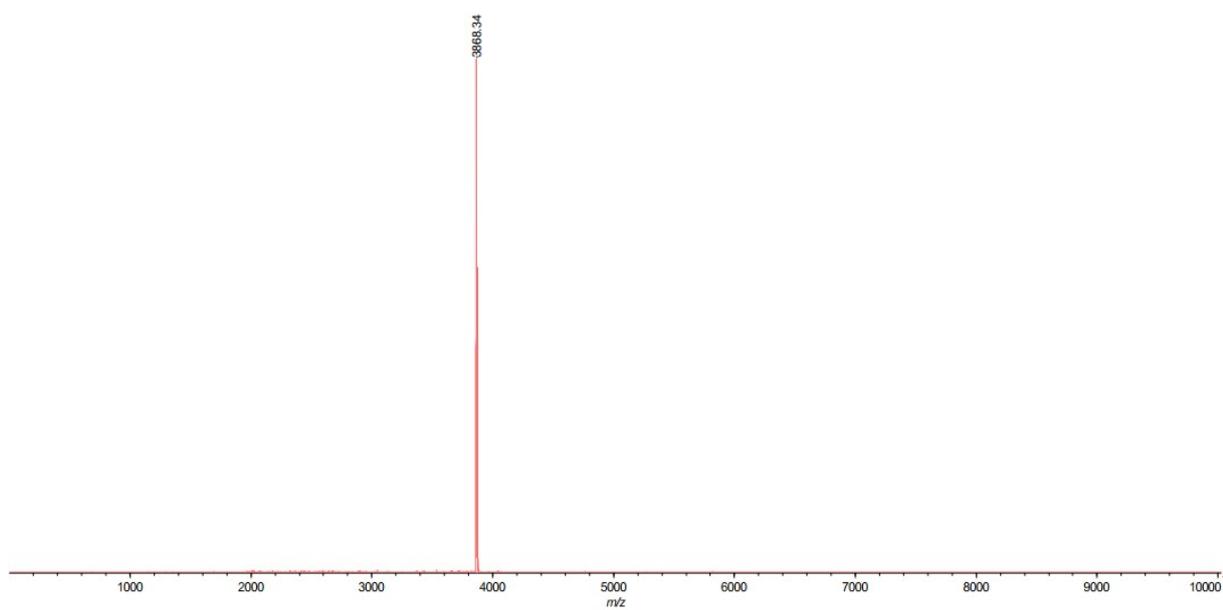


Figure S16. MALDI-TOF mass of 12

Supplementary Data

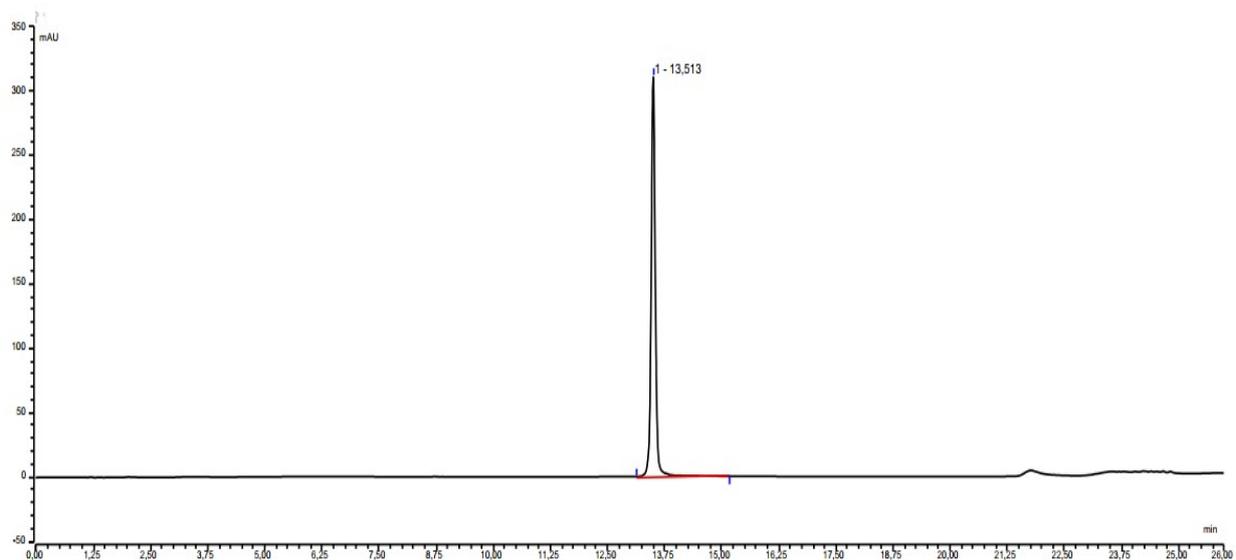


Figure S17. HPLC-C18 of 13

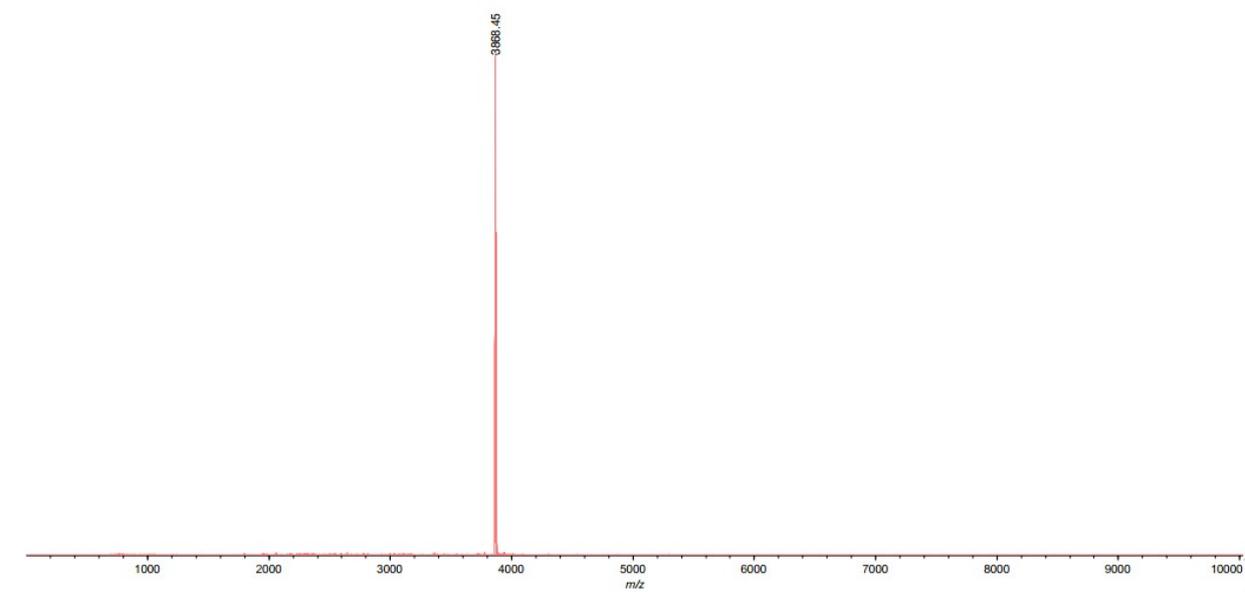


Figure S18. MALDI-TOF mass of 13

Supplementary Data

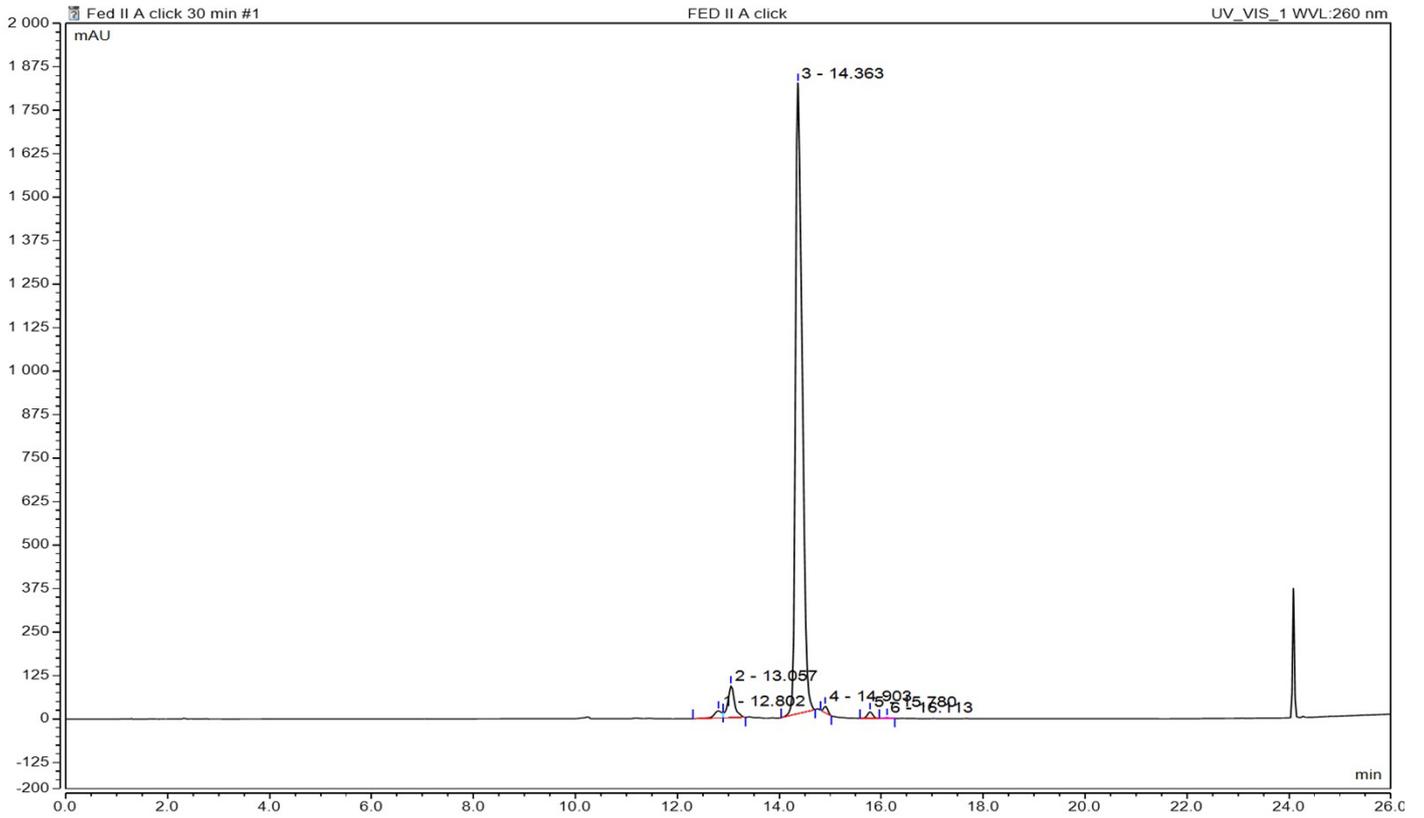


Figure S19. HPLC-C18 of 14

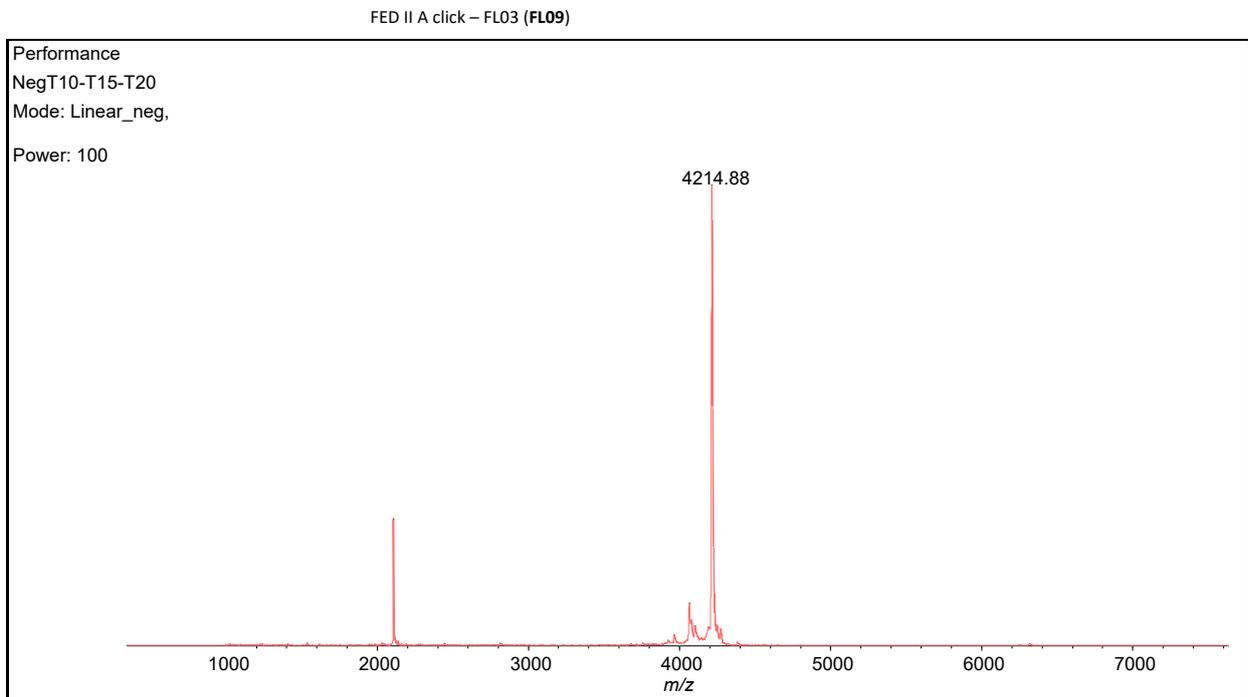


Figure S20. MALDI-TOF mass of 14

Supplementary Data

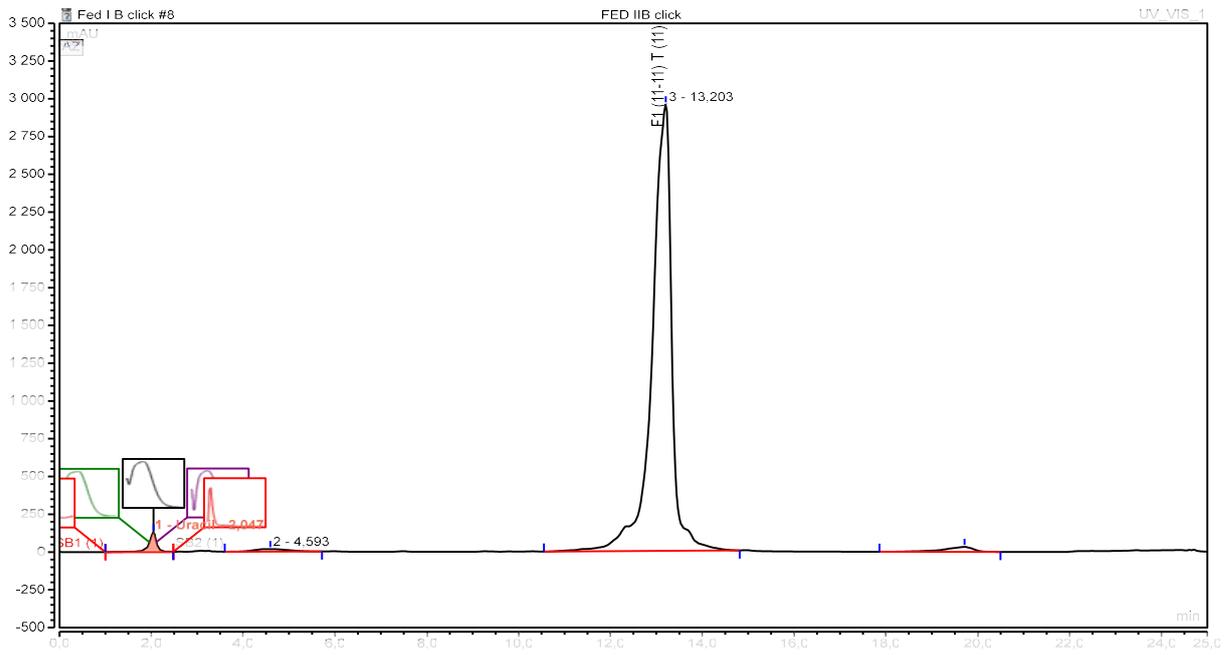


Figure S21. HPLC-C18 of 15

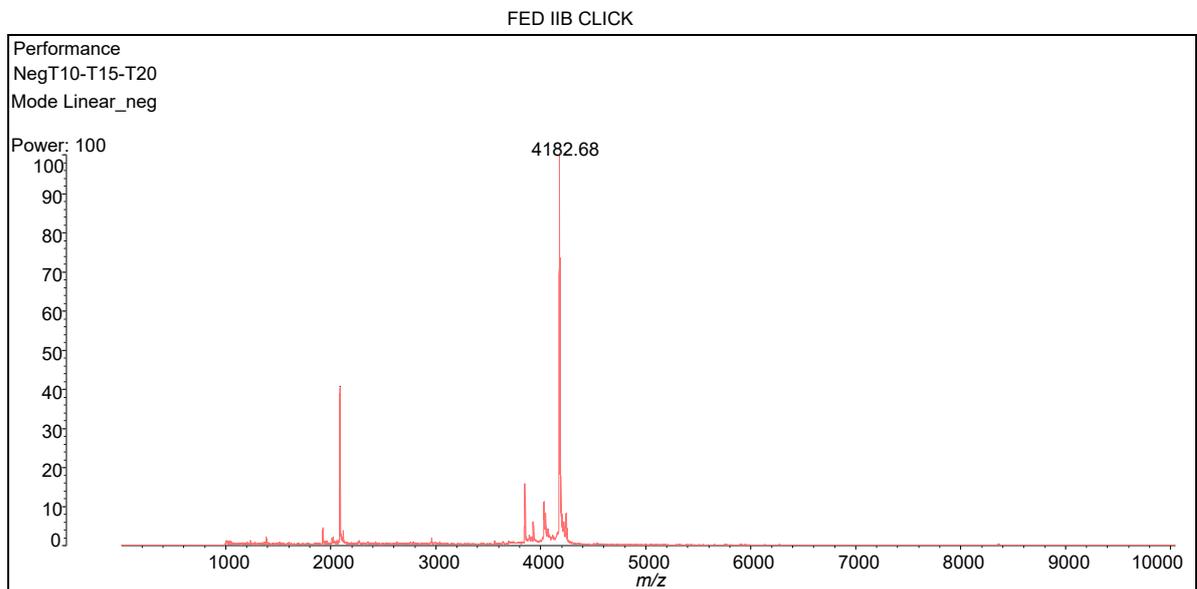


Figure S22. MALDI-TOF mass of 15

Supplementary Data

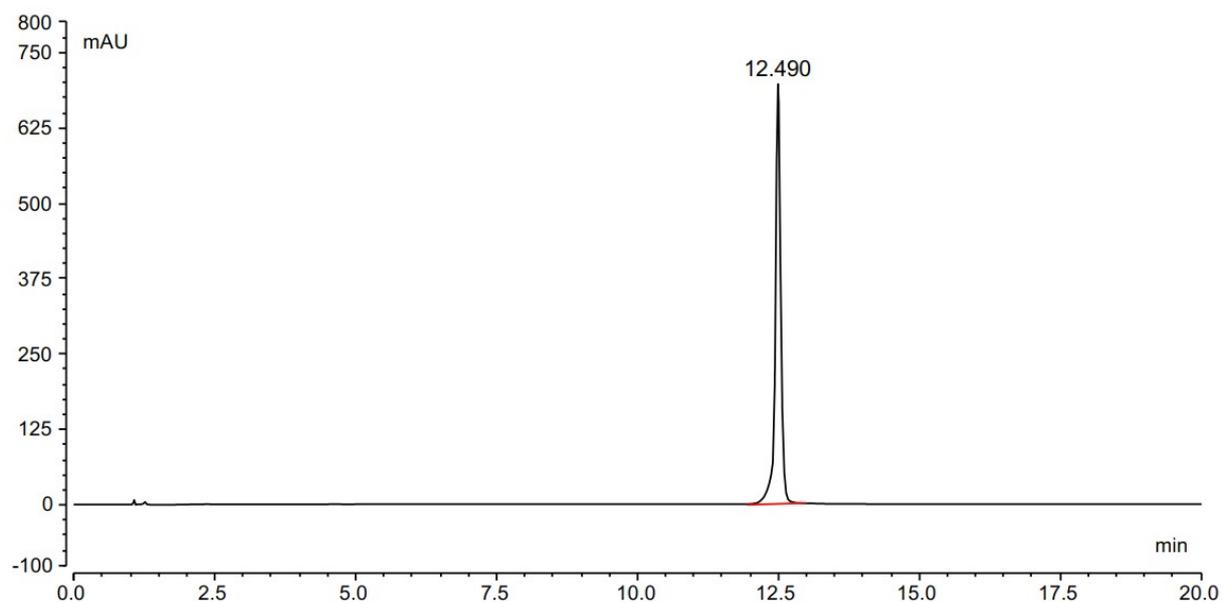


Figure S23. HPLC-C18 of 16

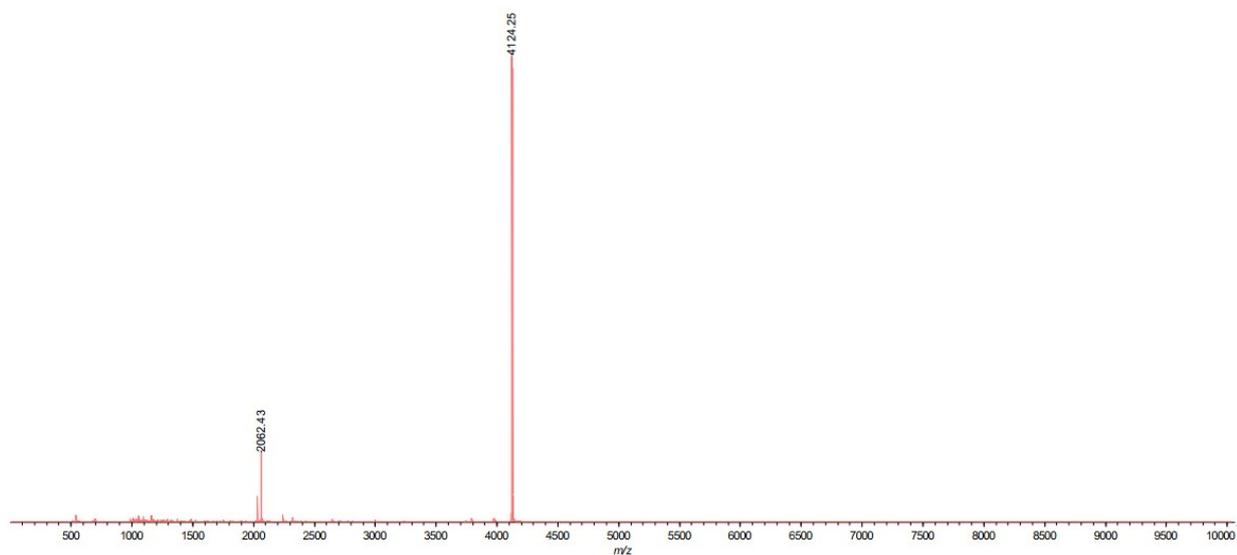


Figure S24. MALDI-TOF mass of 16

Supplementary Data

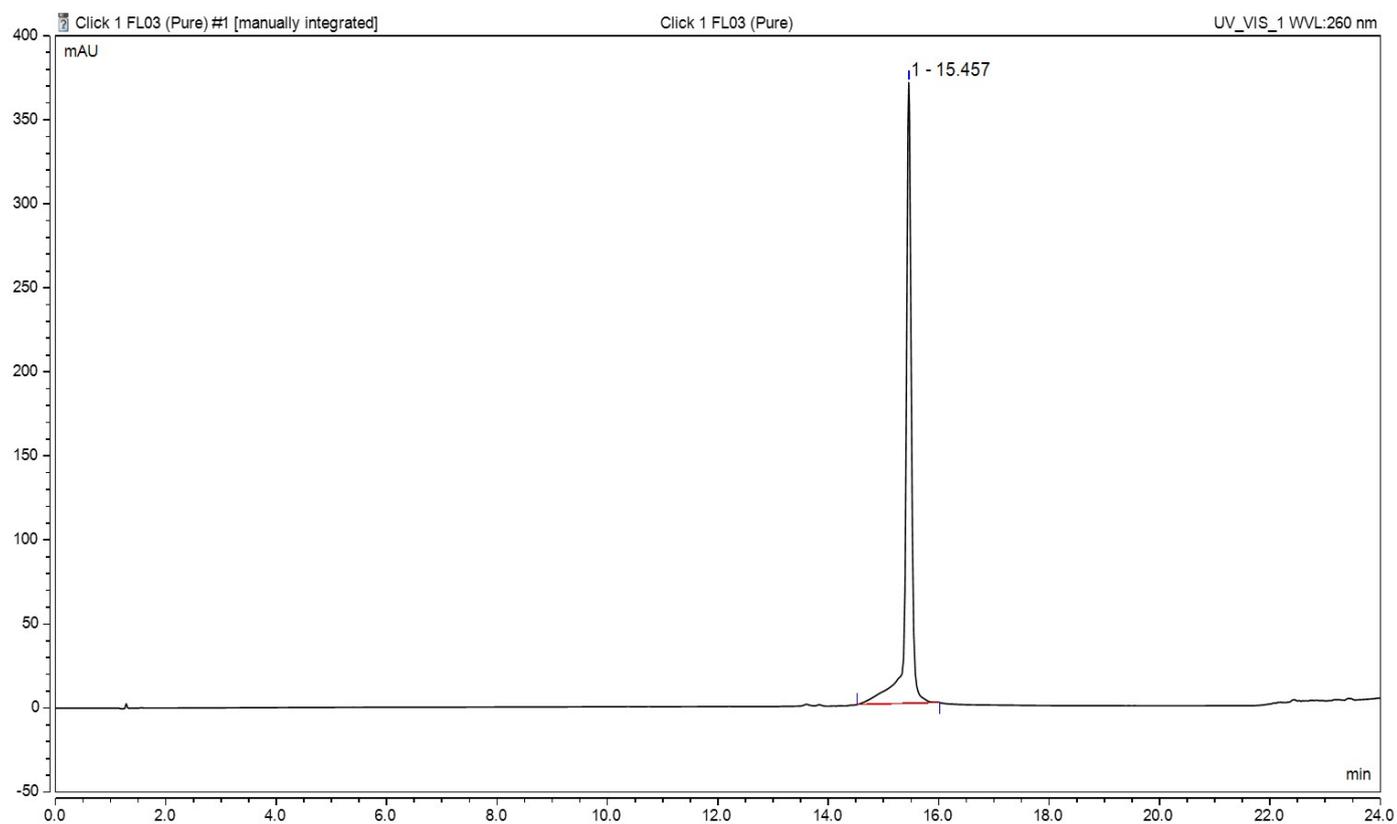


Figure S25. HPLC-C18 of 17

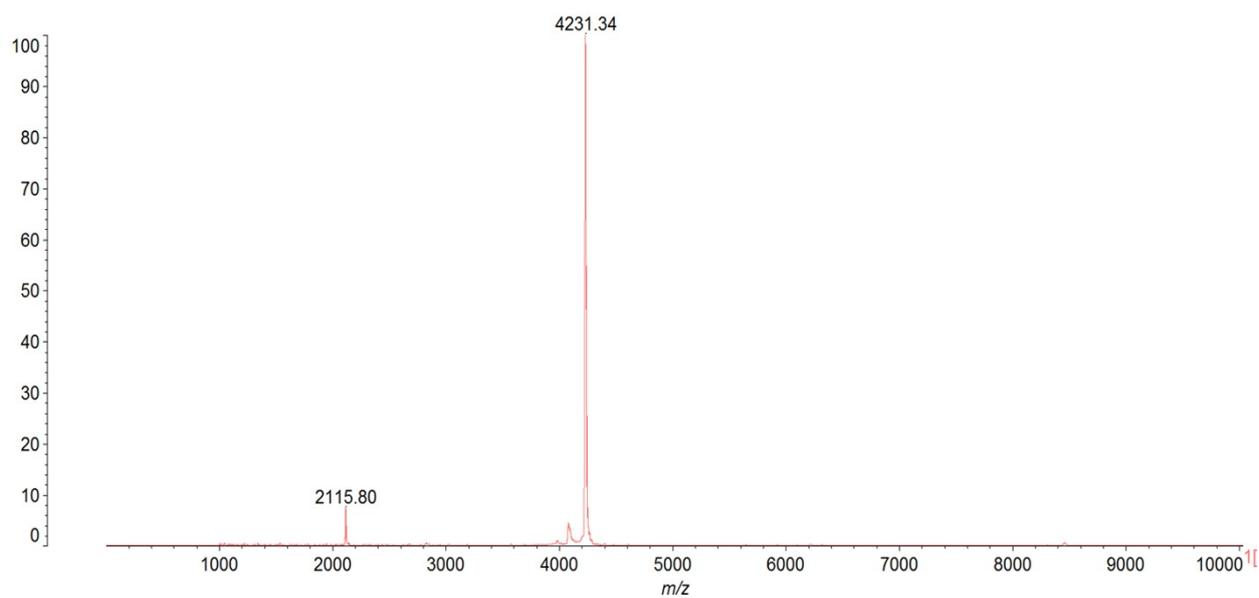


Figure S26. MALDI-TOF mass of 17

Supplementary Data

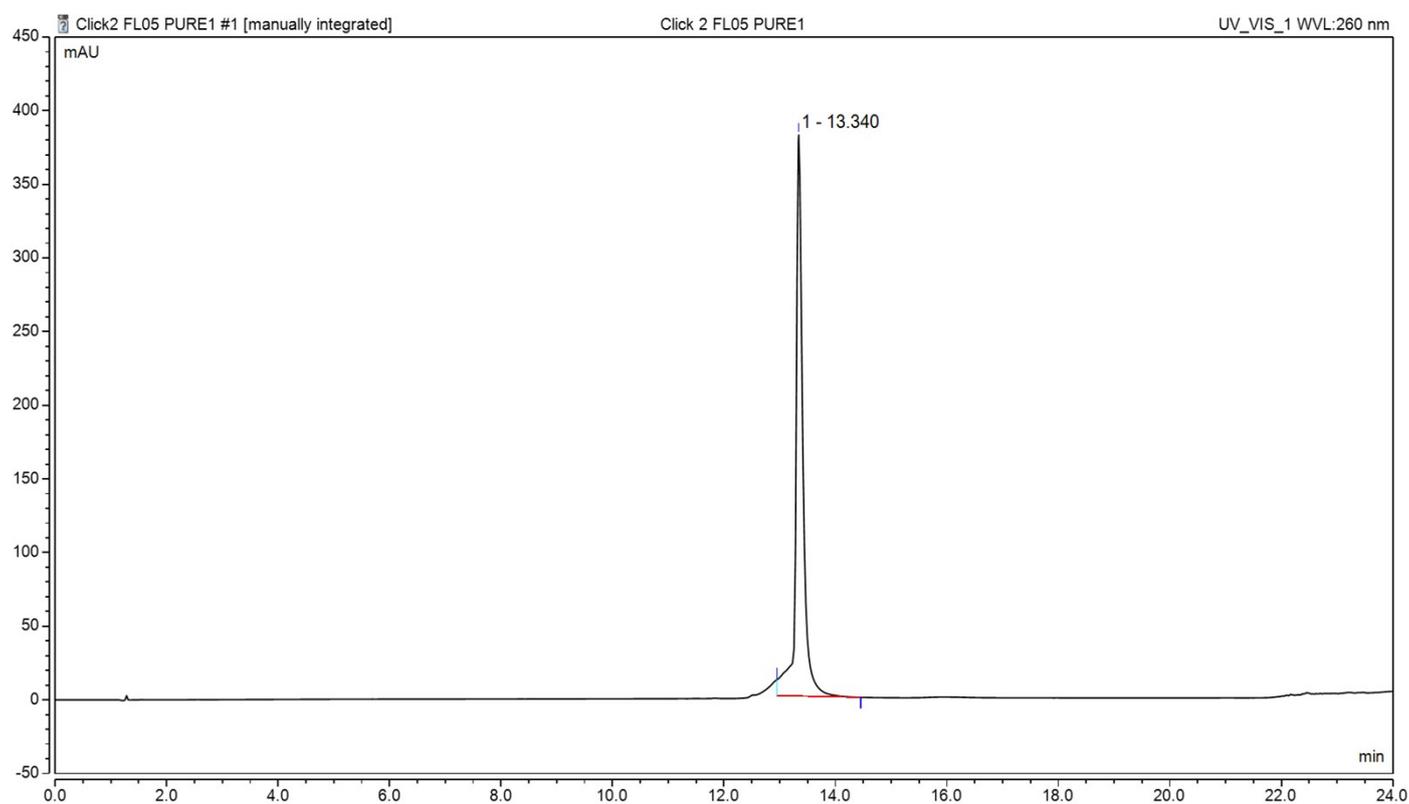


Figure S27. HPLC-C18 of 18

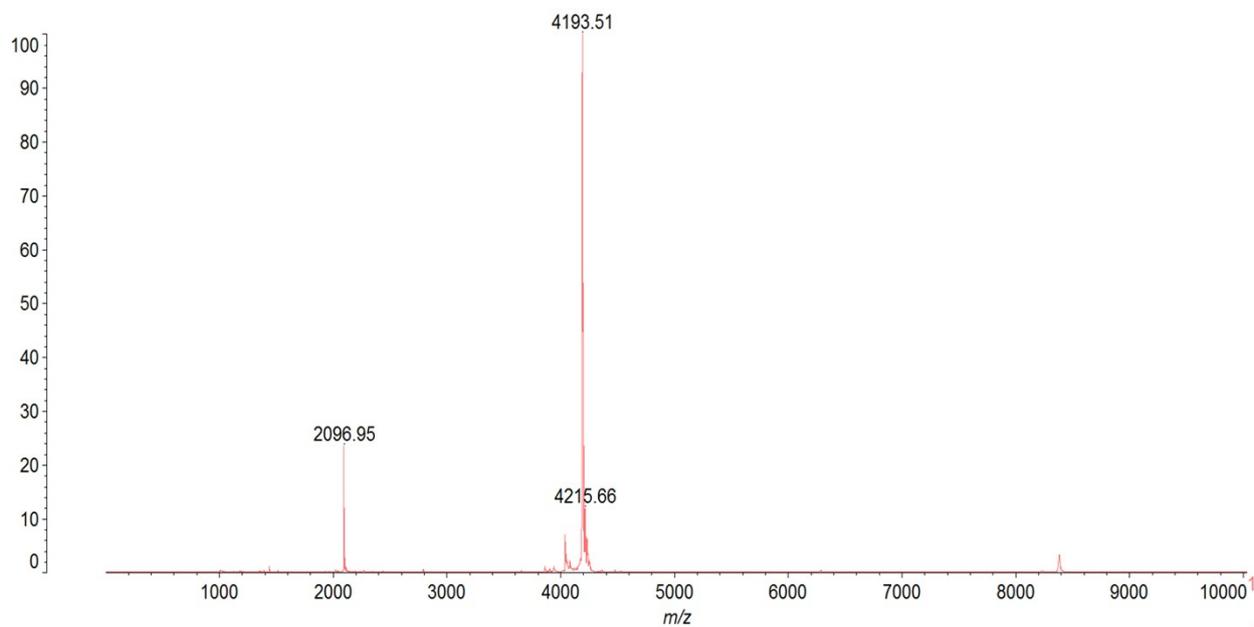


Figure S28. MALDI-TOF mass of 18

Supplementary Data

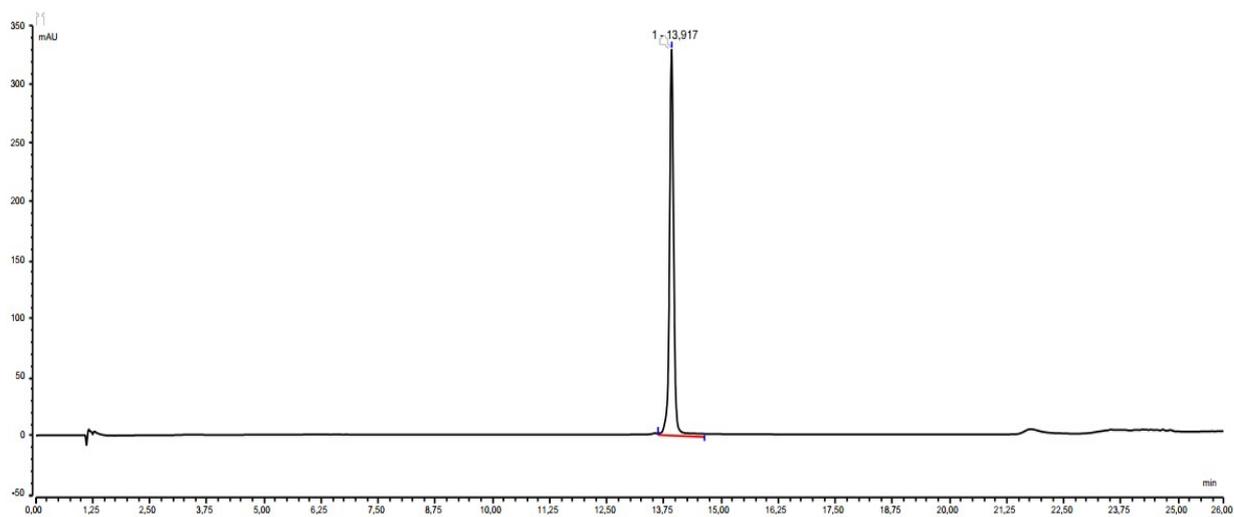


Figure S29. HPLC-C18 of **19**

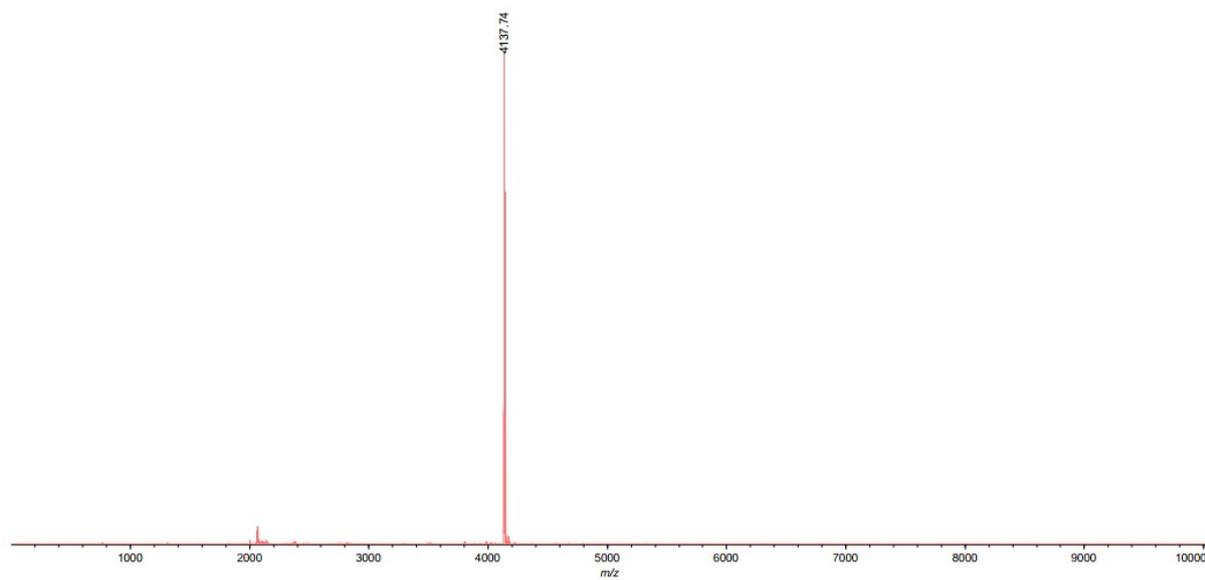


Figure S30. MALDI-TOF mass of **19**

Supplementary Data

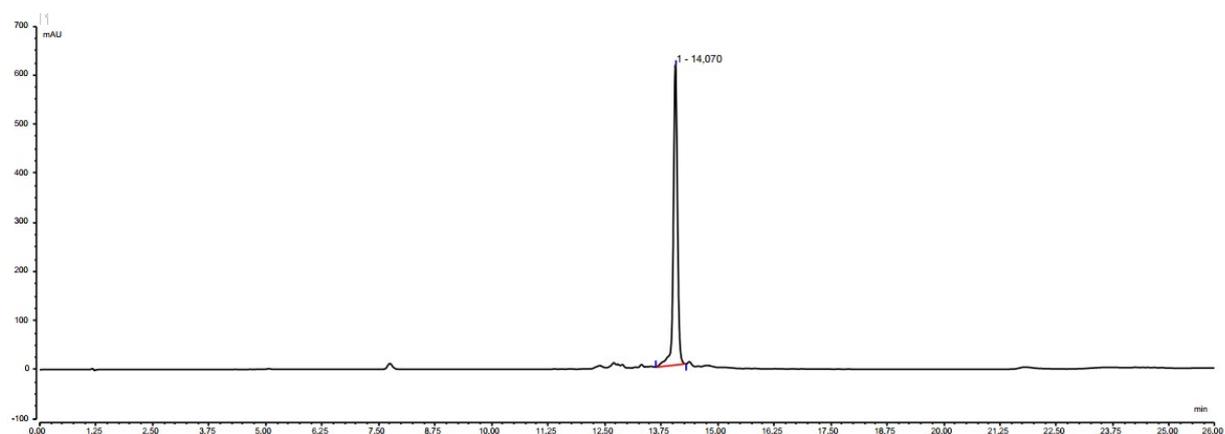


Figure S31. HPLC-C18 of 20

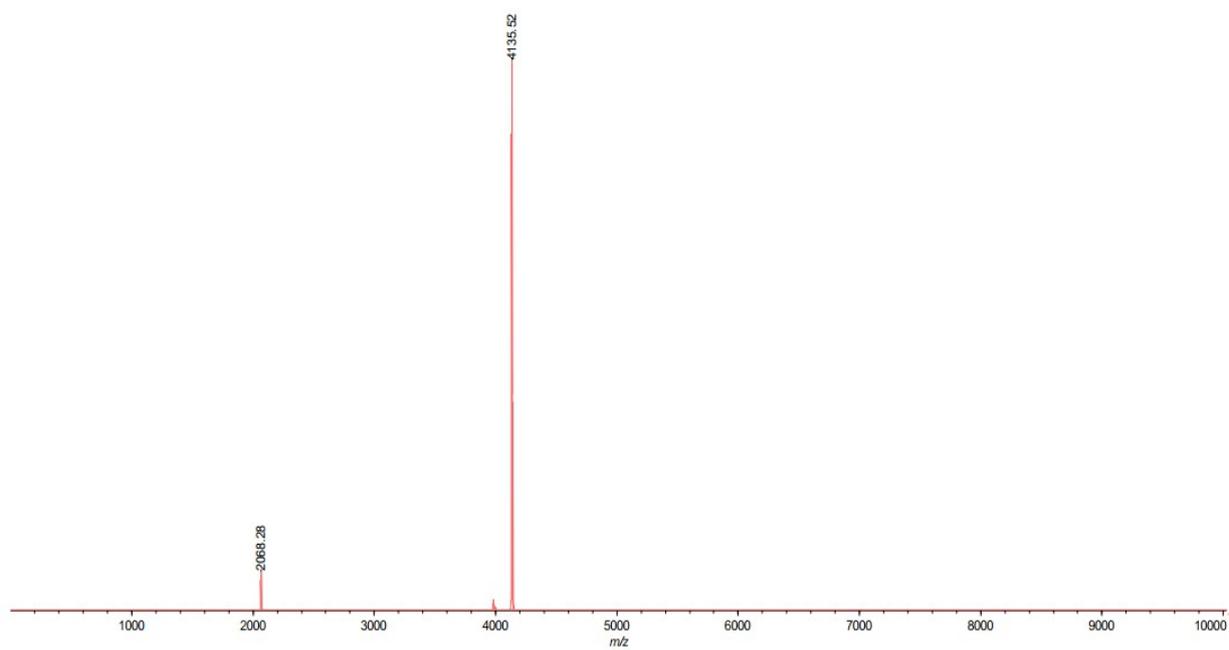


Figure S32. MALDI-TOF mass of 20

Supplementary Data

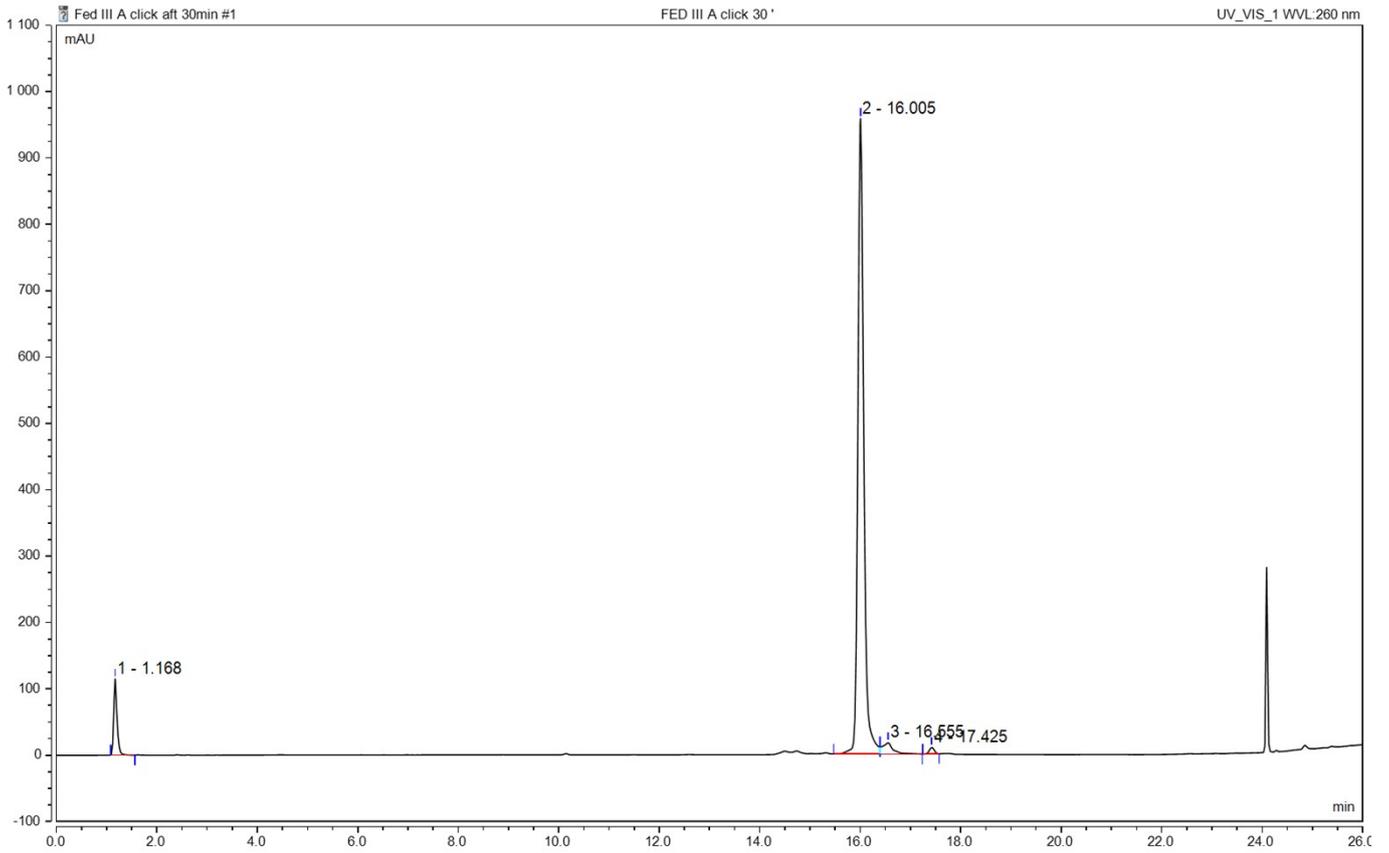


Figure S33. HPLC-C18 of 21

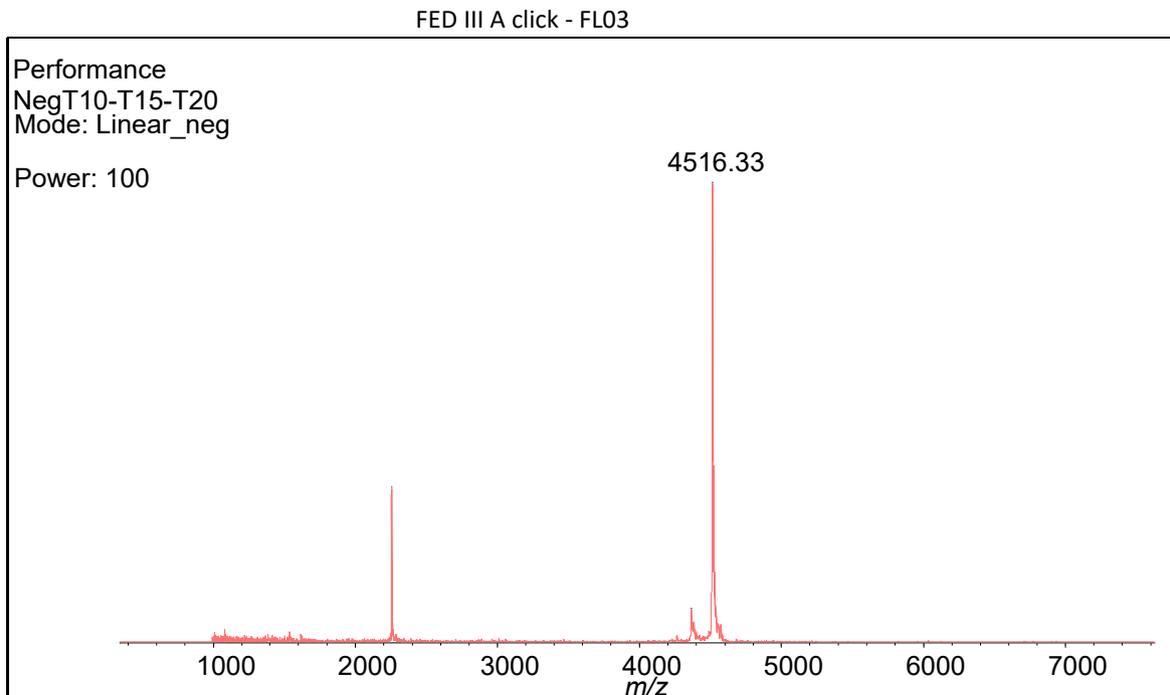


Figure S34. MALDI-TOF mass of 21

Supplementary Data

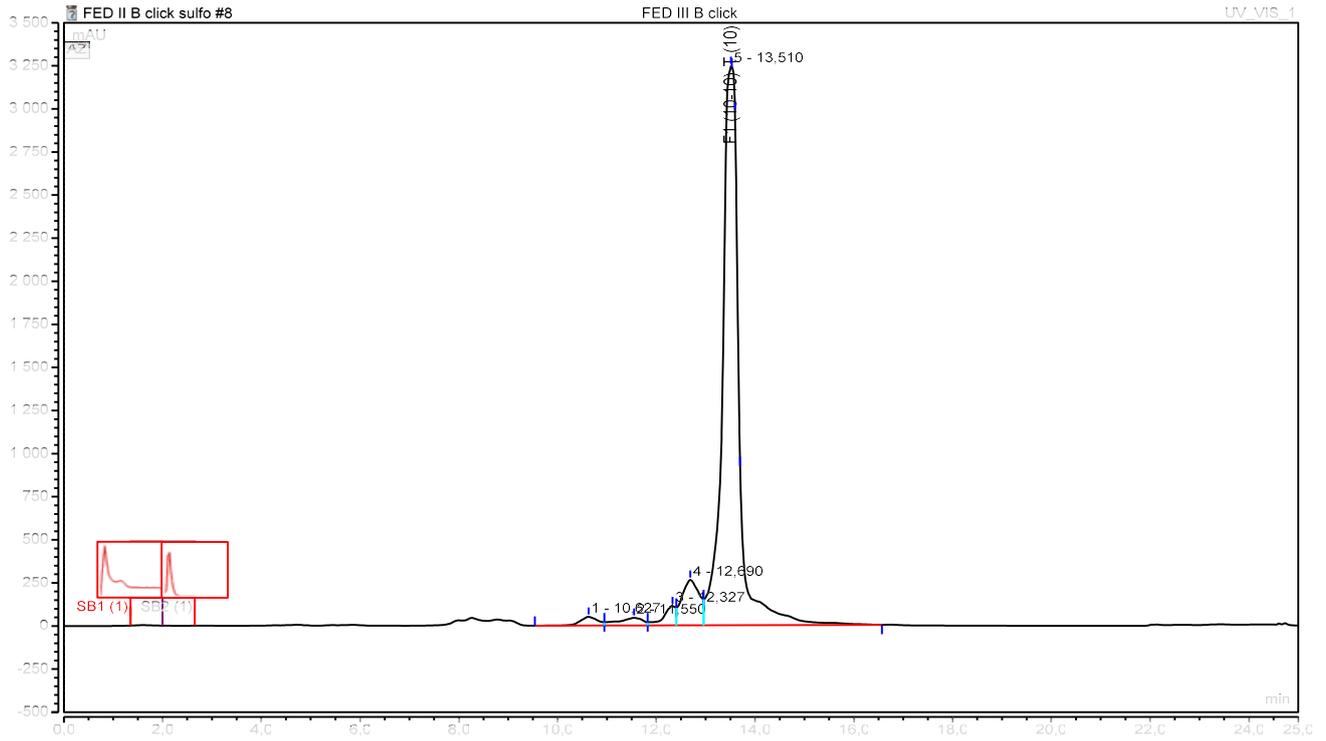


Figure S35. HPLC-C18 of **22**

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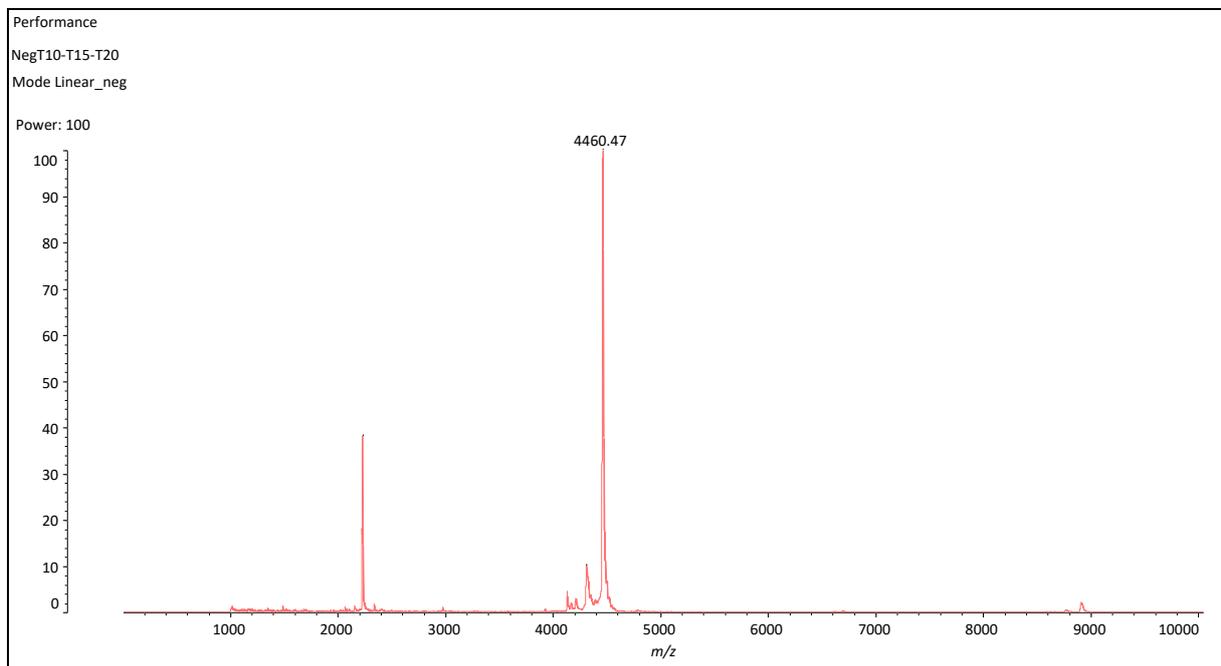


Figure S36. MALDI-TOF mass of **22**

Supplementary Data

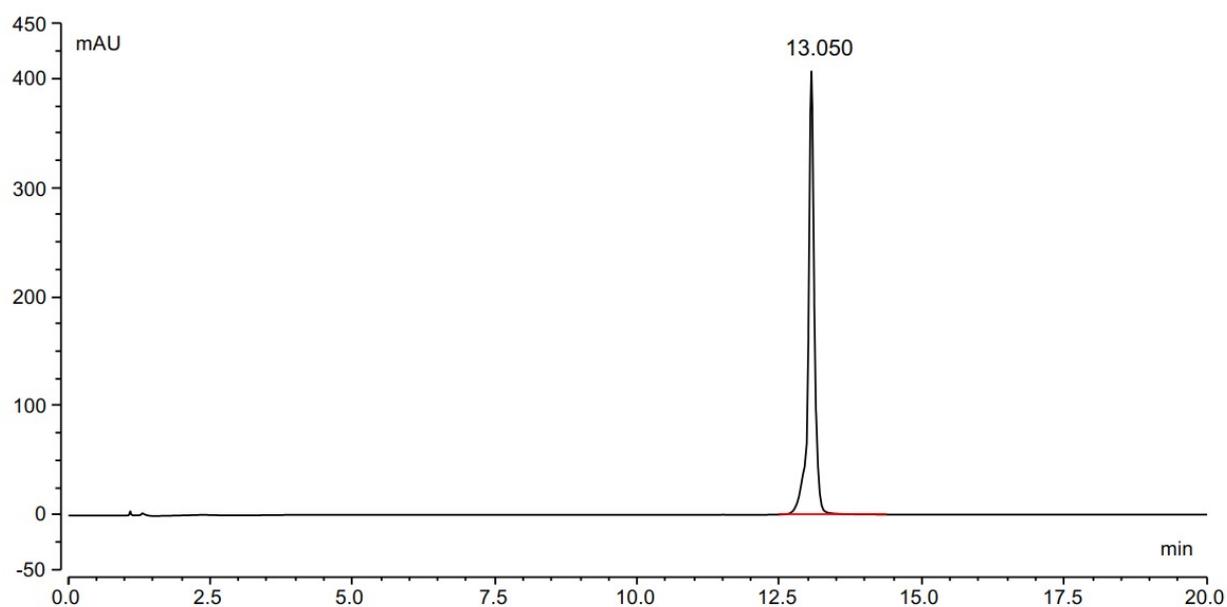


Figure S37. HPLC-C18 of **23**

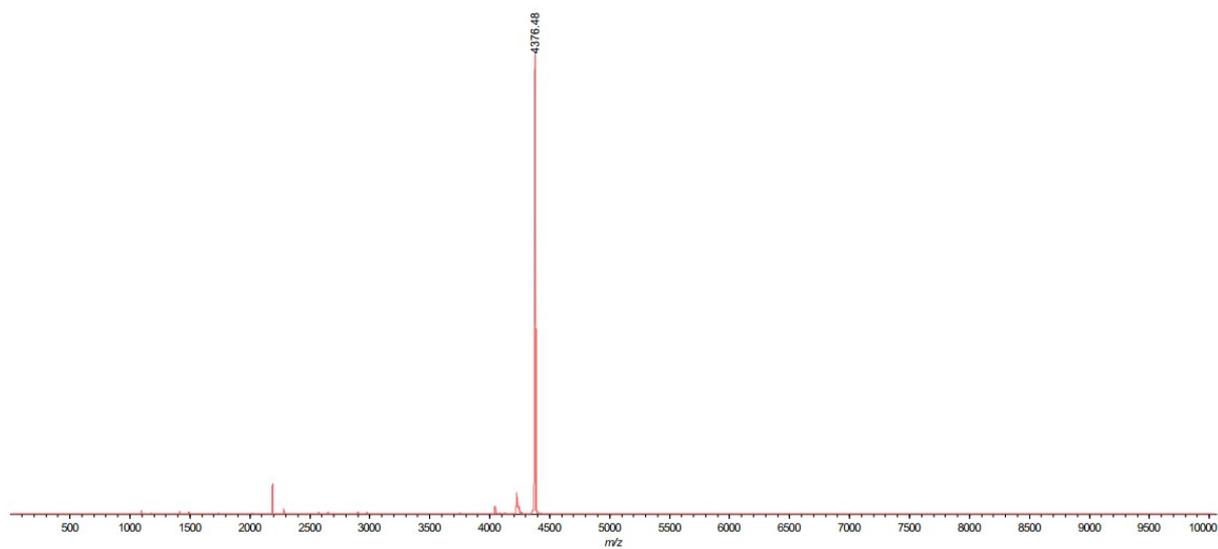


Figure S38. MALDI-TOF mass of **23**

Supplementary Data

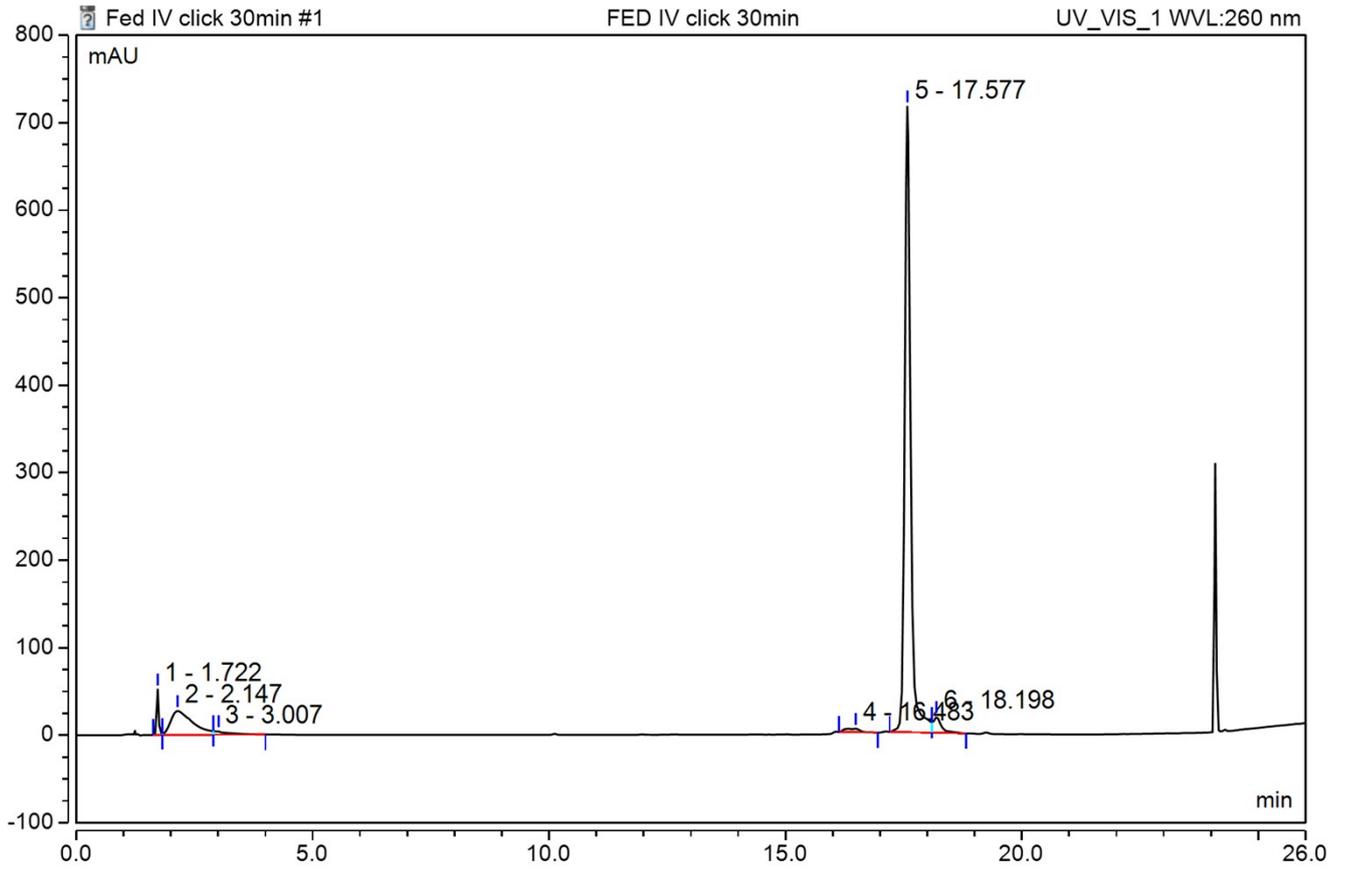


Figure S39. HPLC-C18 of **24**

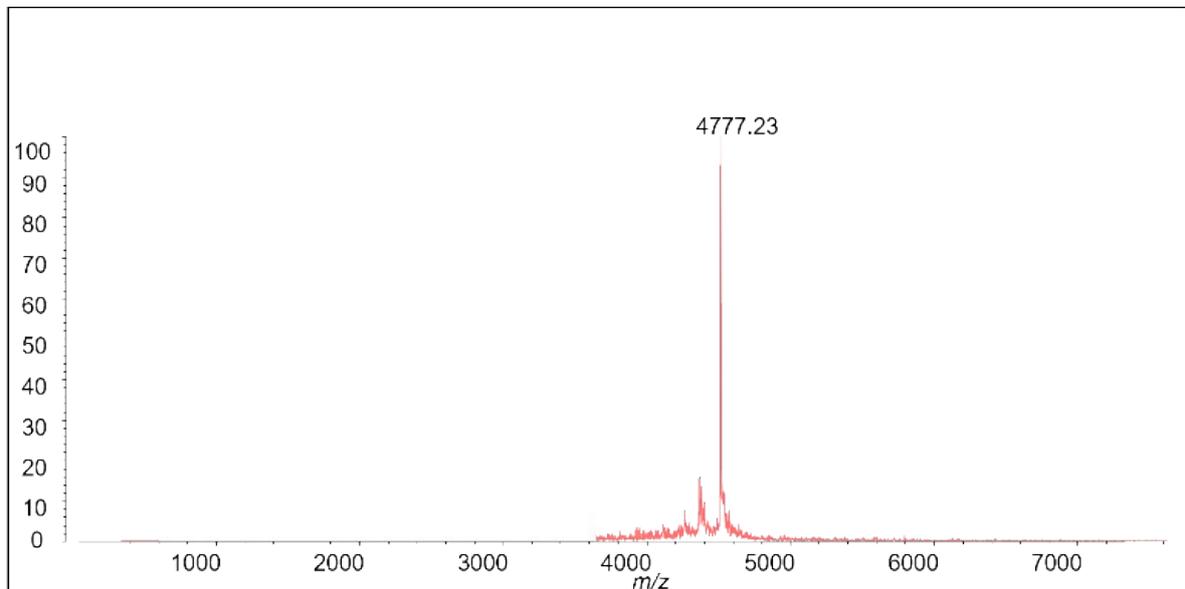


Figure S40. MALDI-TOF mass of **24**

Supplementary Data

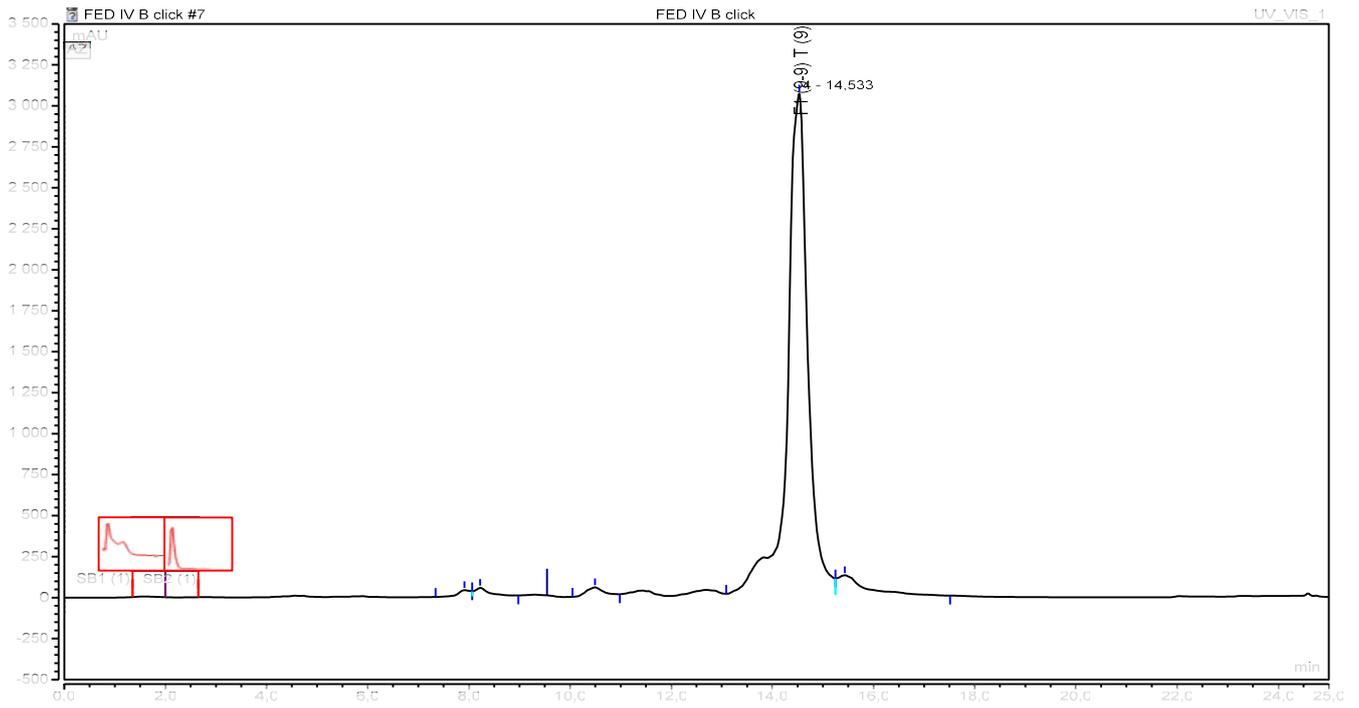


Figure S41. HPLC-C18 of 25

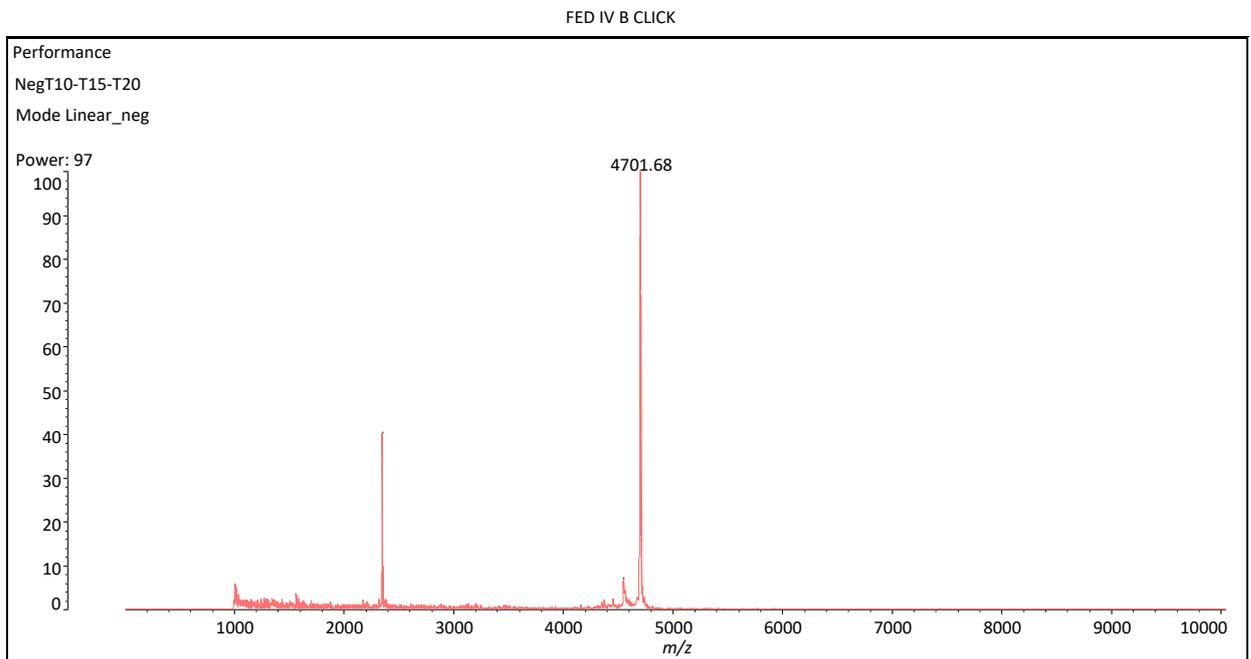


Figure S42. MALDI-TOF mass of 25

Supplementary Data

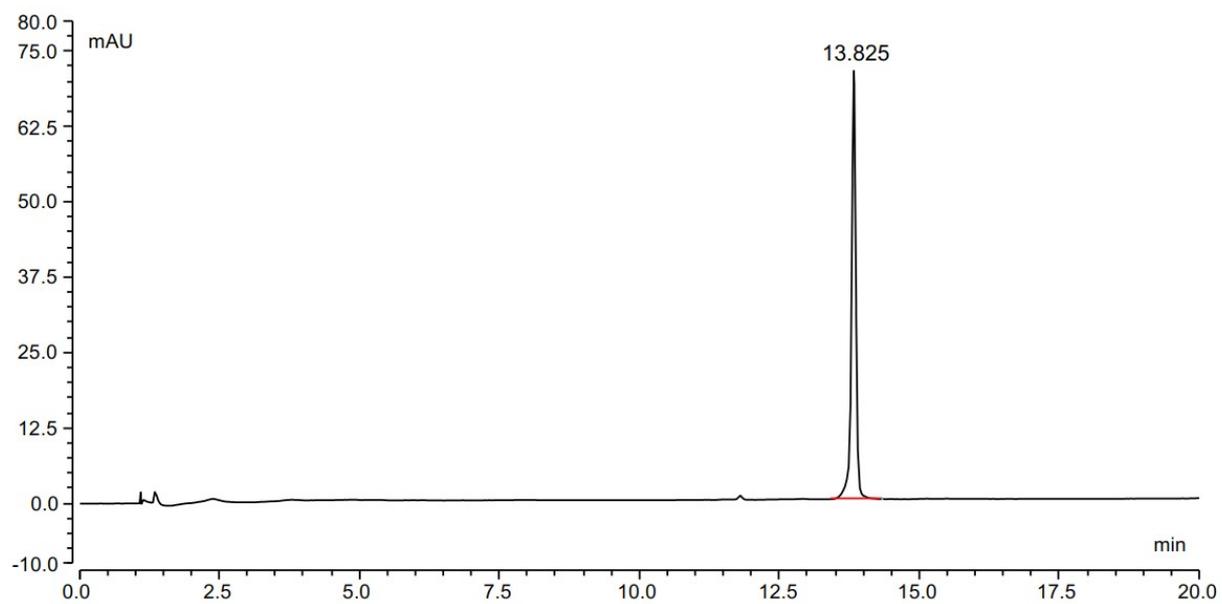


Figure S43. HPLC-C18 of 26

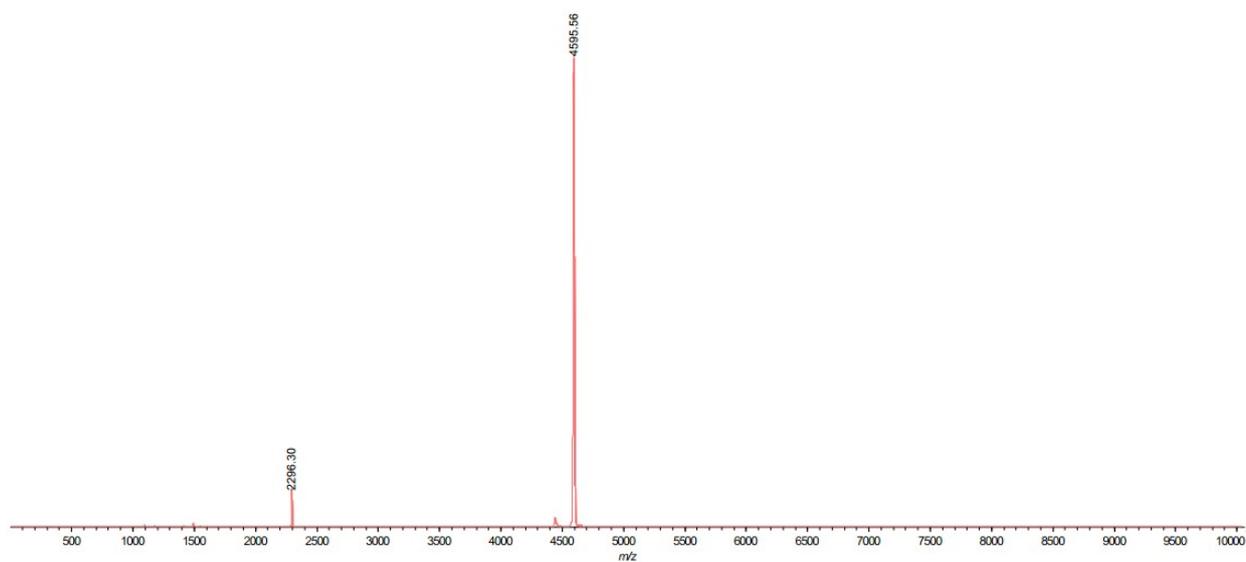


Figure S44. MALDI-TOF mass of 26

Figure S45 Inhibition curves with compound 19

