

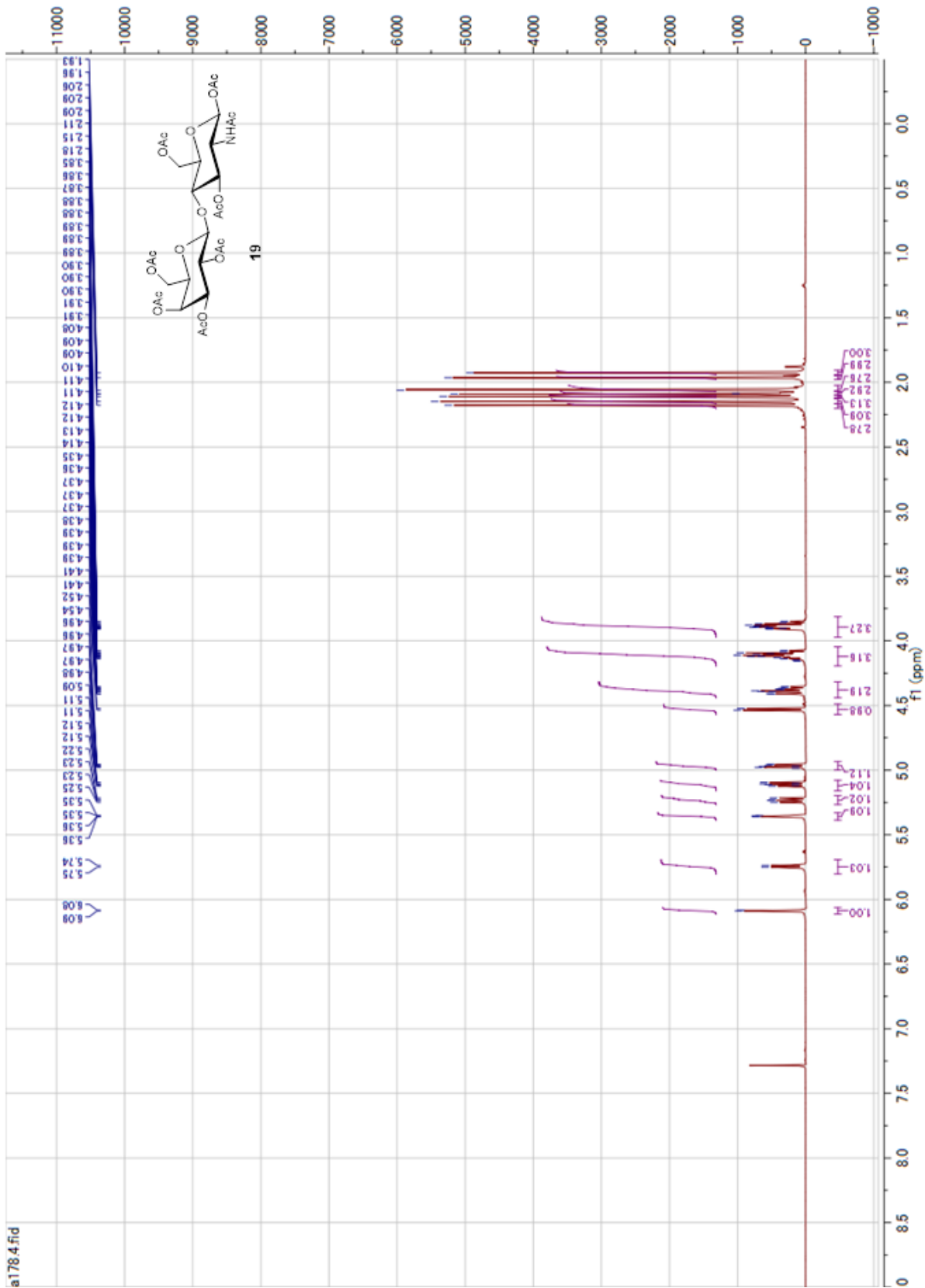
## Supplementary Information 2

### The design and synthesis of an $\alpha$ -Gal trisaccharide epitope that provides a highly specific anti-Gal immune response

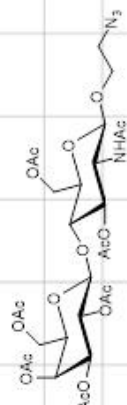
Kensaku Anraku, Shun Sato, Nicholas T. Jacob, Lisa M. Eubanks, Beverly A. Ellis and Kim D. Janda

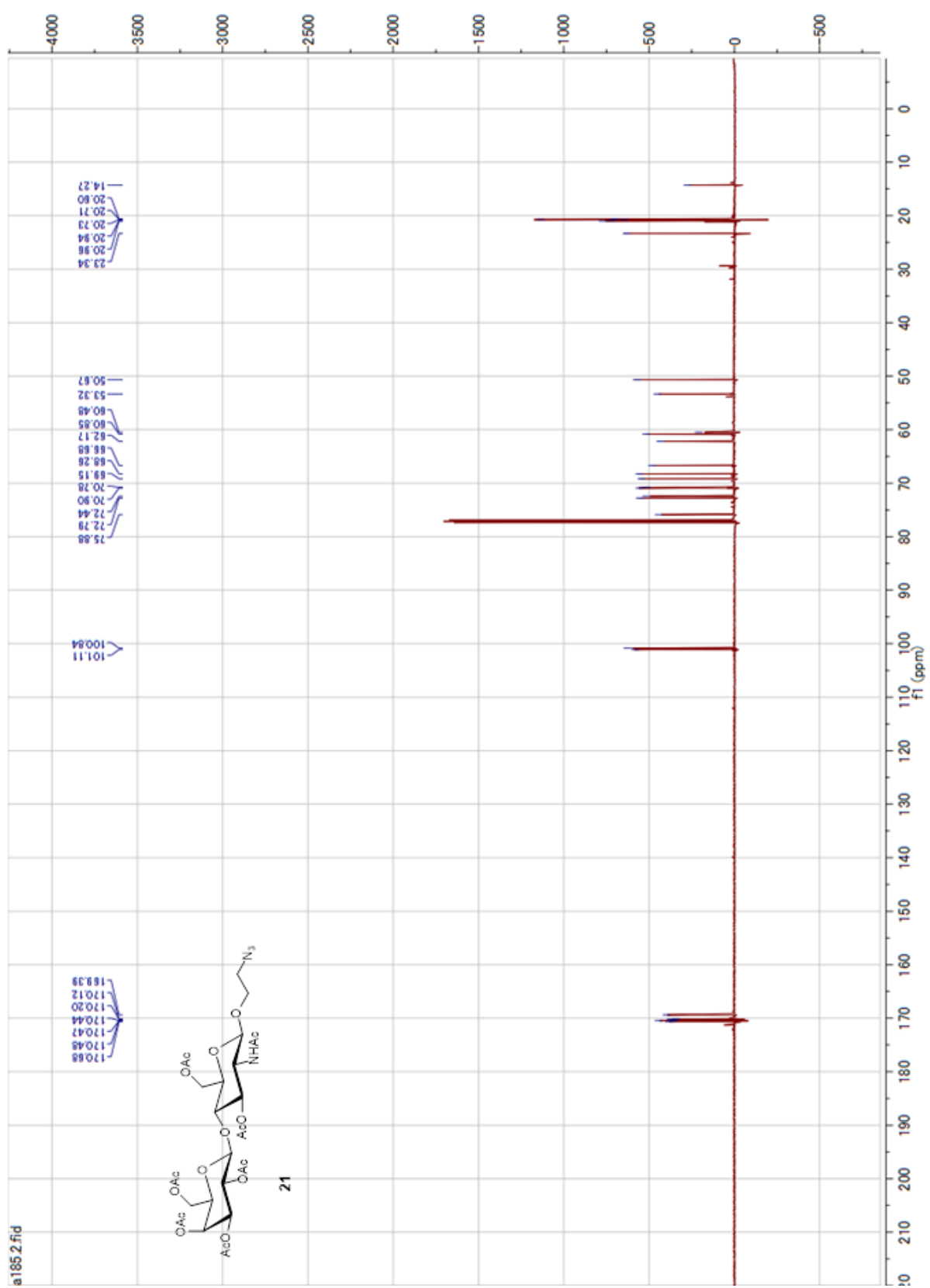
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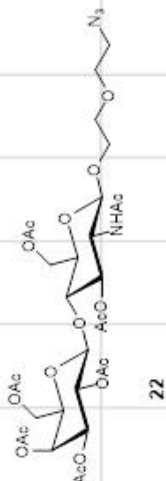
### <sup>1</sup>H, <sup>13</sup>C NMR spectra (compound 19-26)

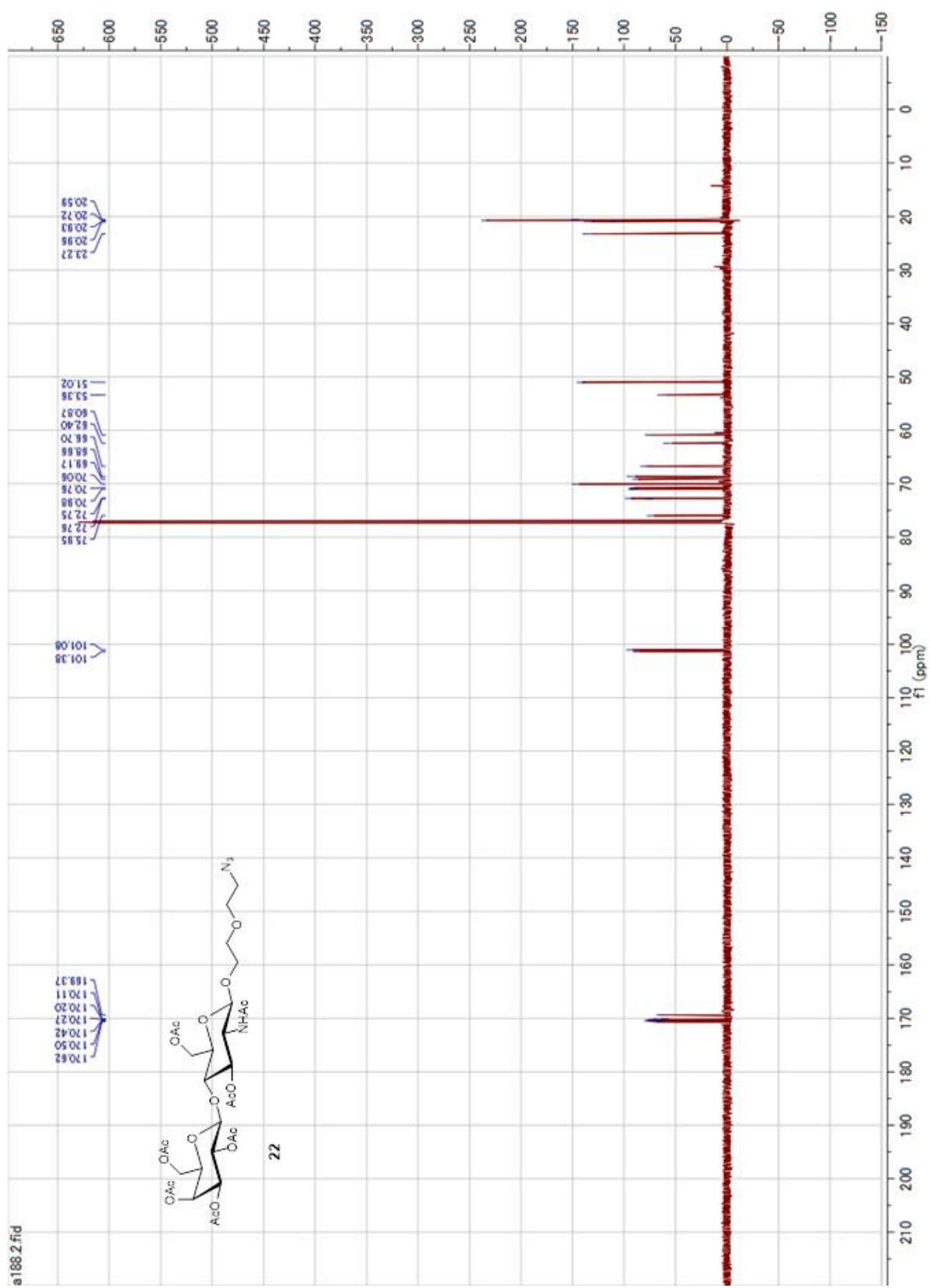






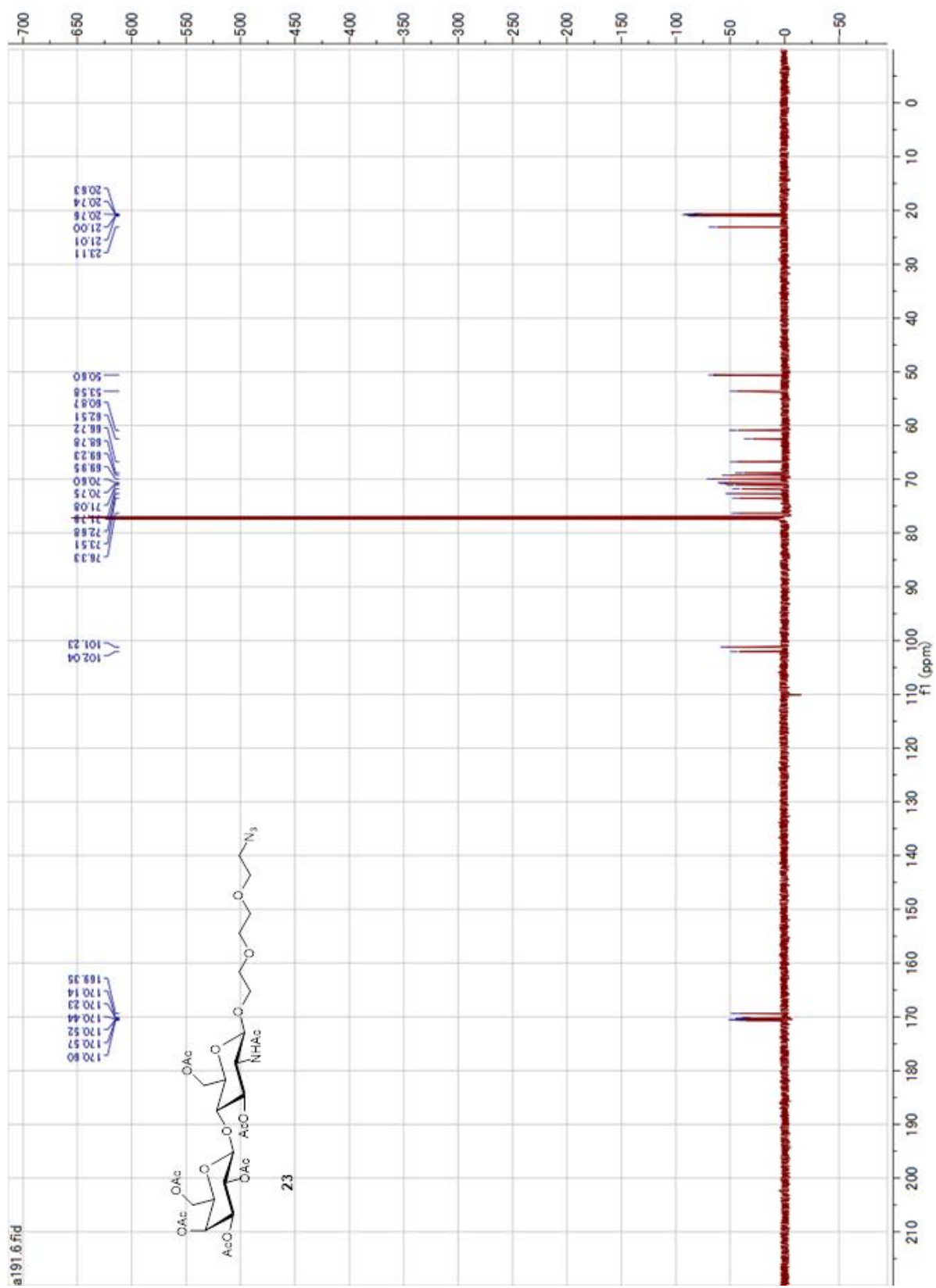


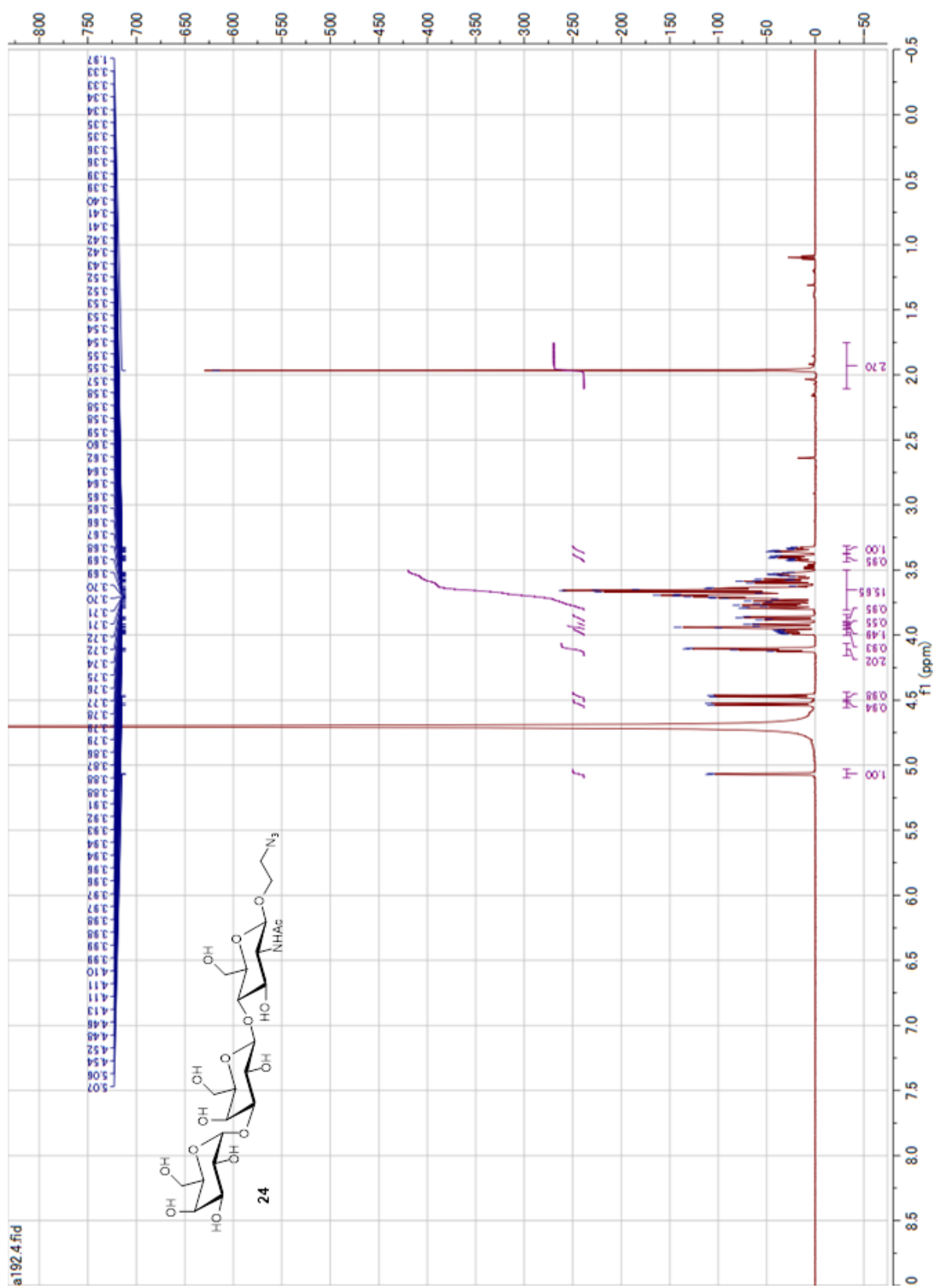


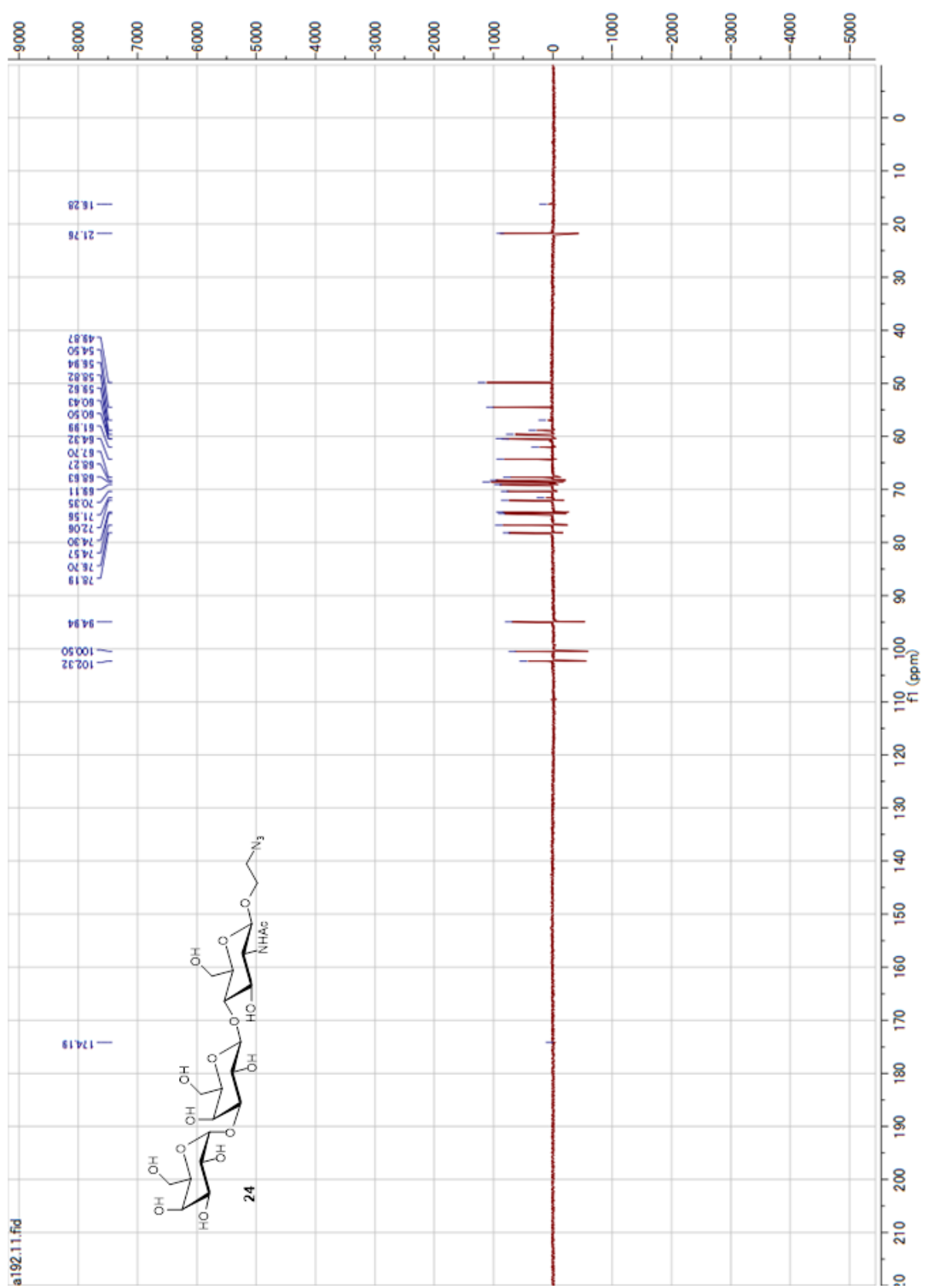


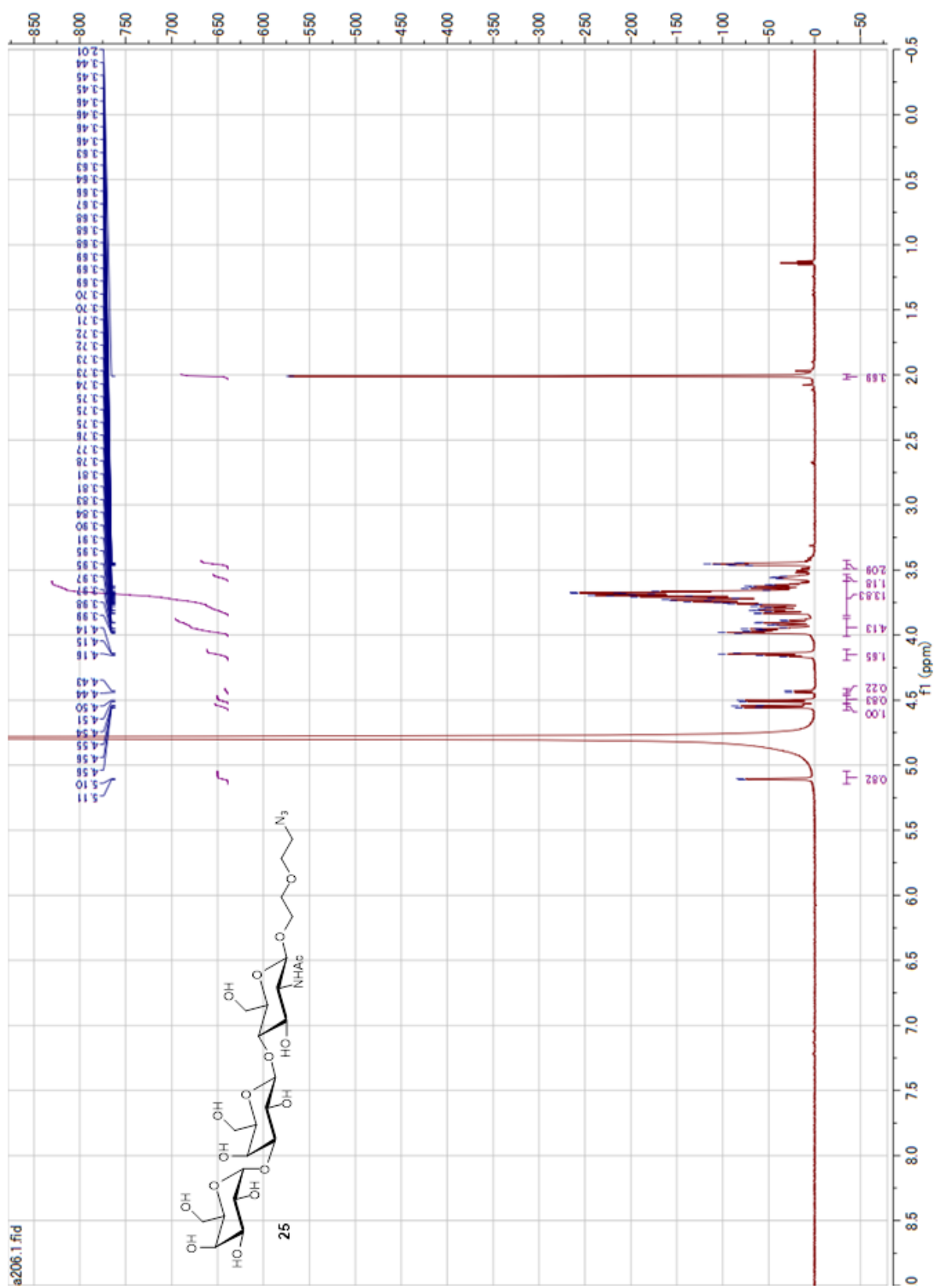


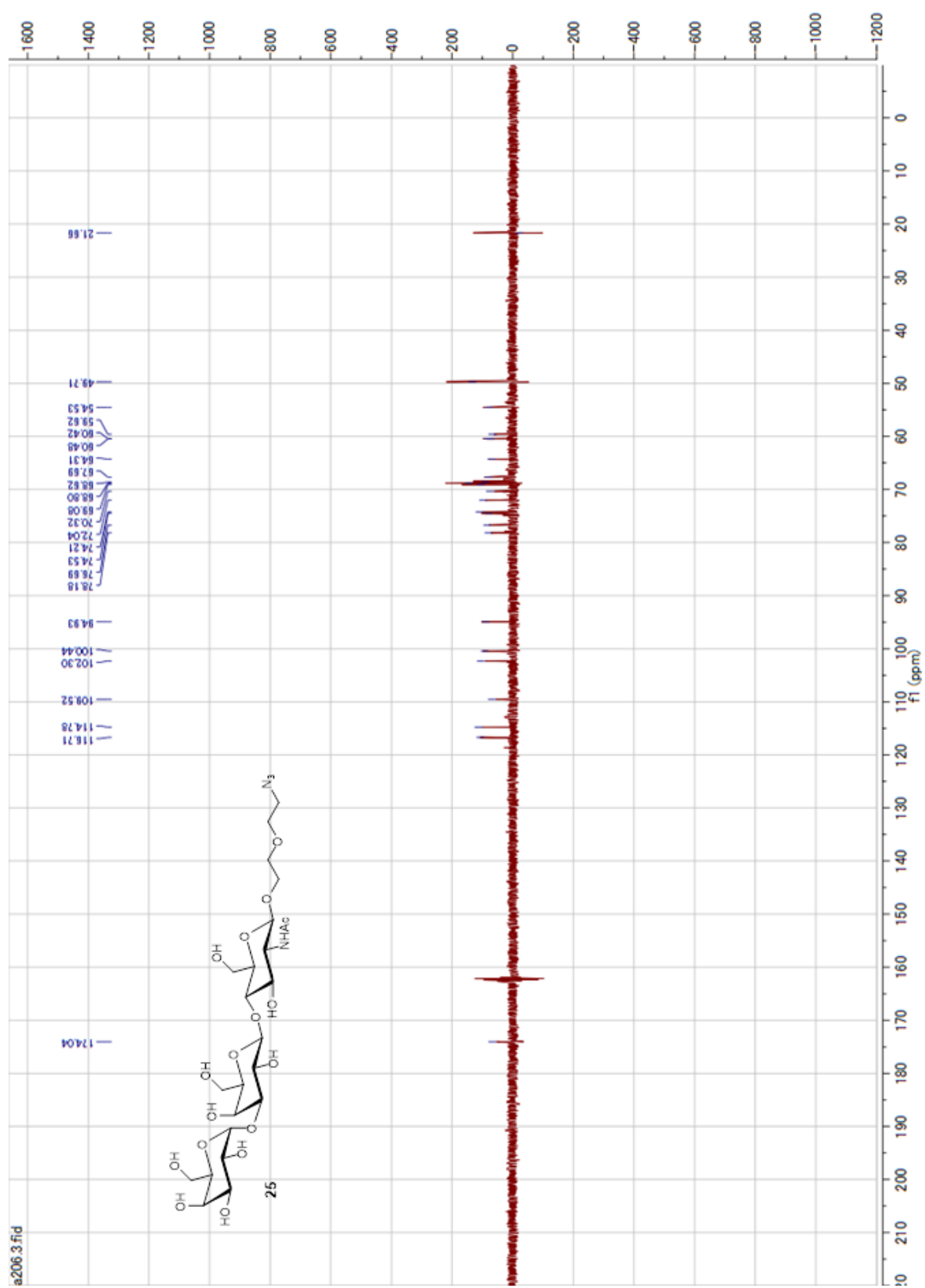


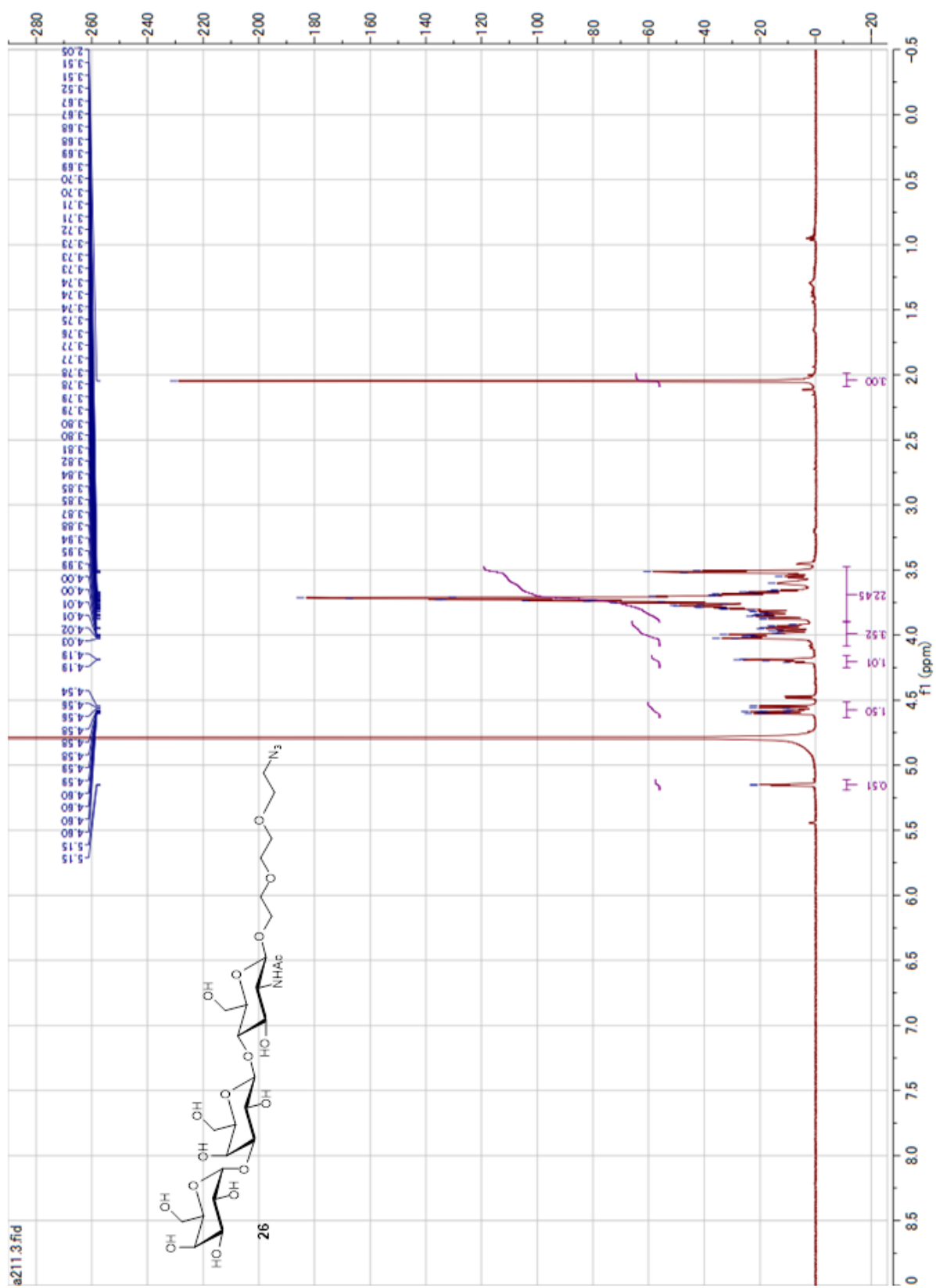


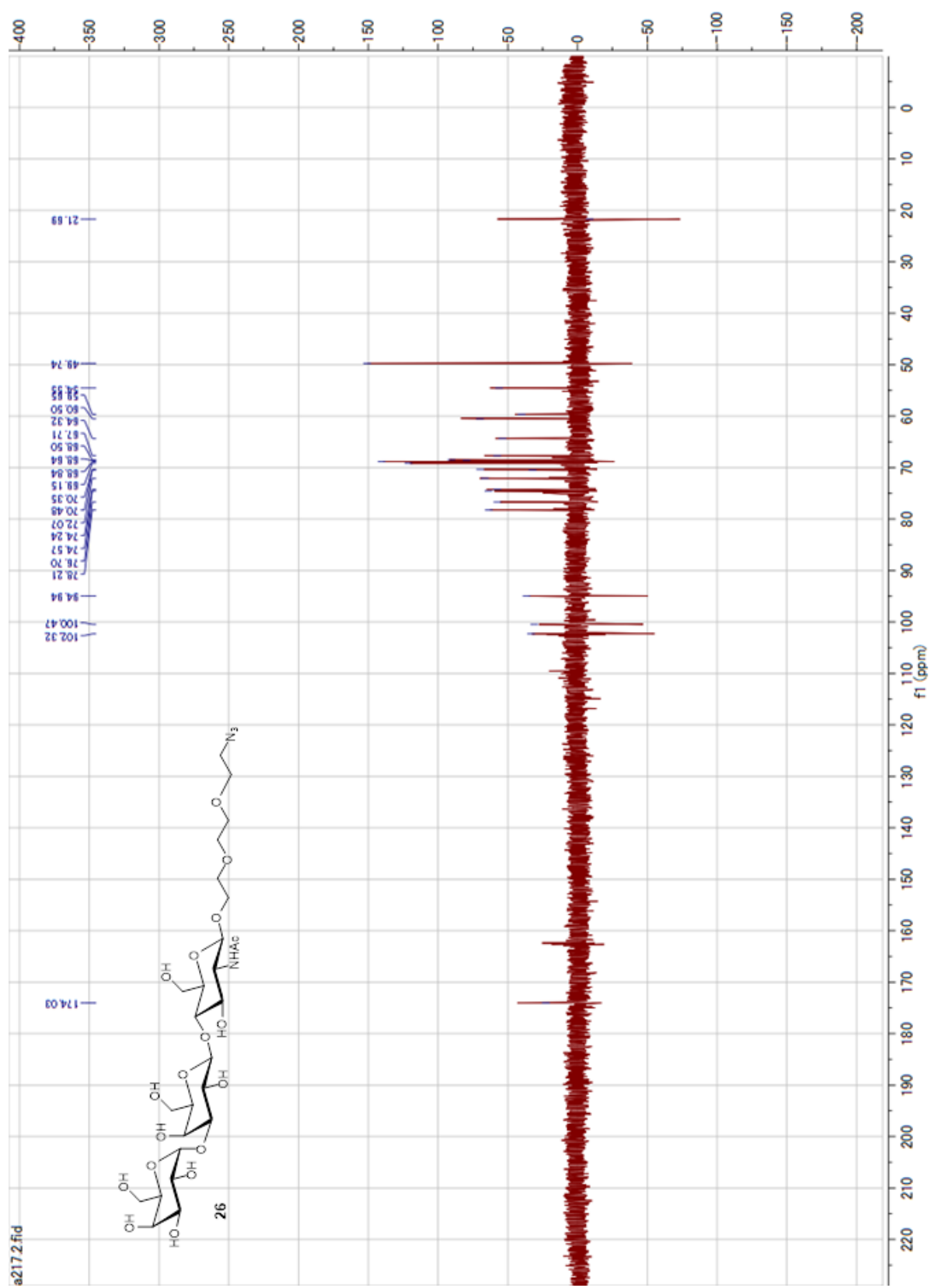


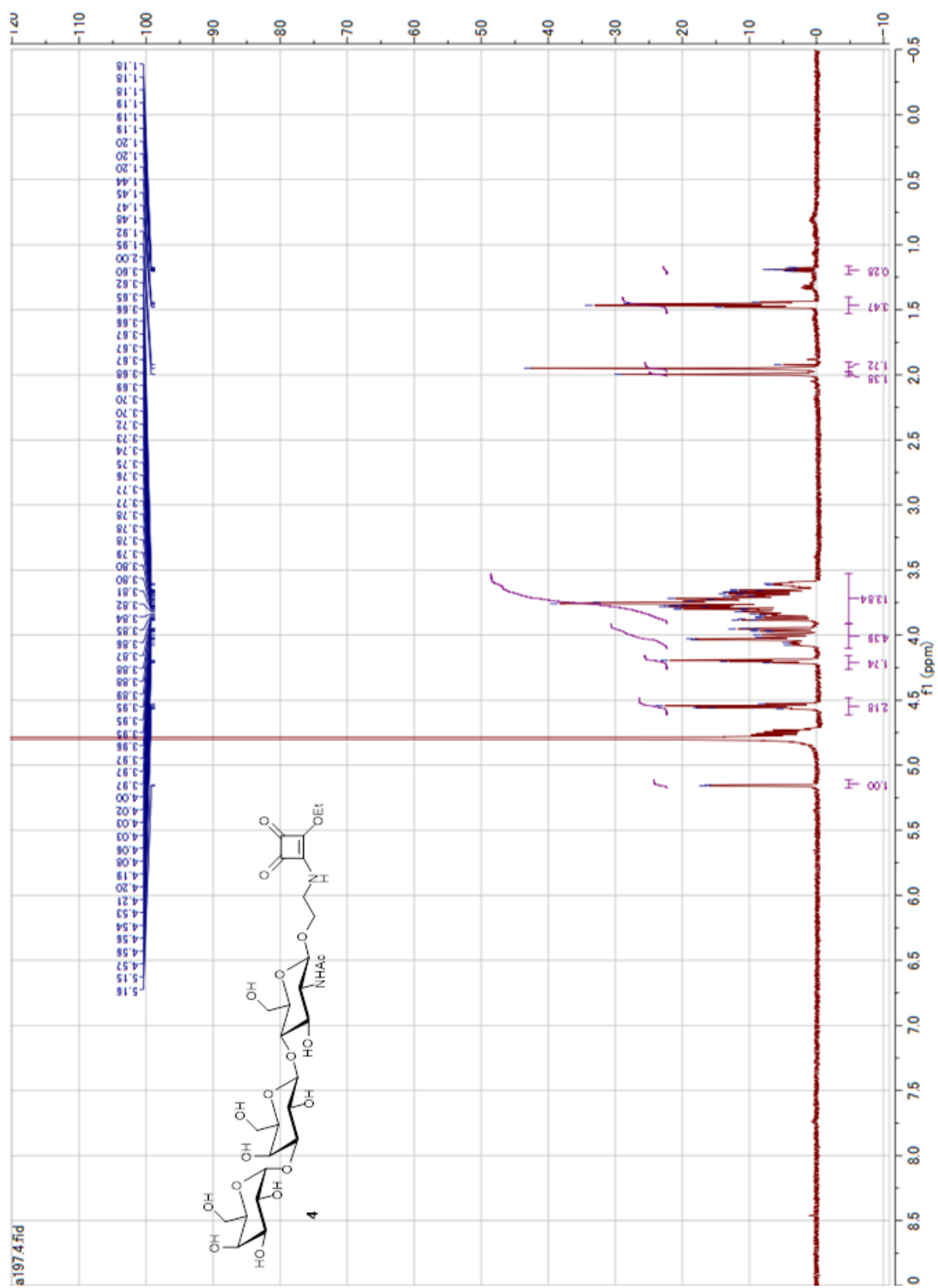






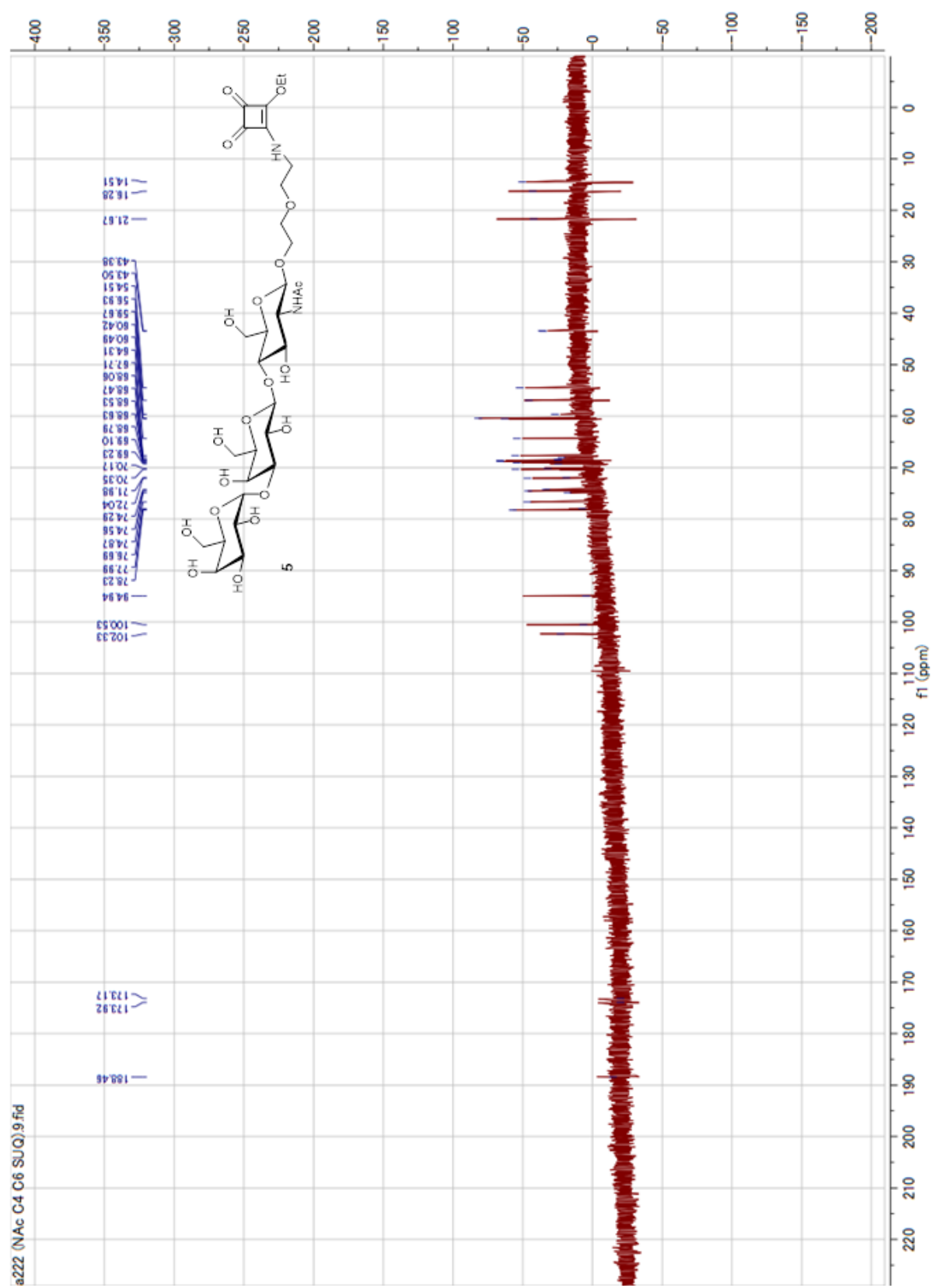








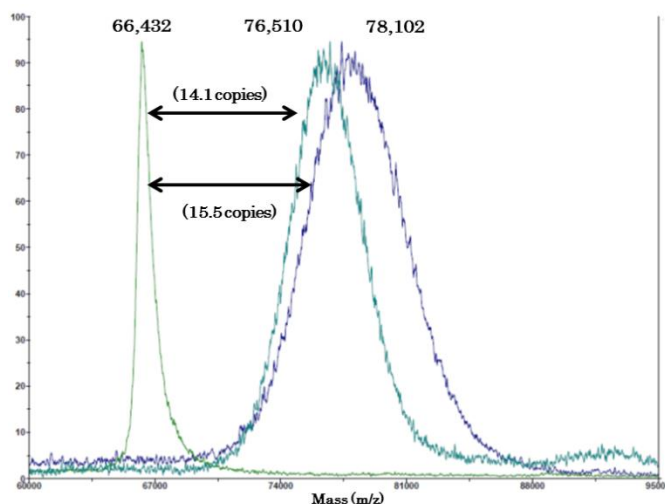








### MALDI-TOF mass spectrum of BSA, compound 3-BSA conjugate, and 6-BSA conjugate.



Compound **3** were conjugated to BSA with 14.1 copies (MW: 76,510) and compound **6** were conjugated to BSA with 15.5 copies (MW: 78,102) as determined by MALDI-TOF comparing with original BSA (MW=66,432). Copy number =  $(\text{MW } \alpha\text{Gal BSA} - \text{MW BSA}) / (\text{MW } \alpha\text{Gal} - \text{MW EtOH})$ ; MW  $\alpha\text{Gal}$  = 759 (compound **3**), 800 (compound **6**) Da, MW EtOH = 46 Da; MW **3**-BSA = 76,514 Da, MW **6**-BSA = 78,102, MW BSA = 66,432 Da.

**SDS-PAGE of purified Gal E and  $\alpha$ 1,3-GalT.**

