Supporting Information for

Multifunctional PEG Retinylamine Conjugate Provides Prolonged Protection against Retinal Degeneration in Mice

Guanping Yu[1,4], Xueming Wu[1,4], Nadia Ayat[1], Akiko Maeda[2, 3], Song-Qi Gao[2], Marcin Golczak[2], Krzysztof Palczewski[2], Zheng-Rong Lu[1]

[1]Department of Biomedical Engineering, School of Engineering, Case Western Reserve University, Cleveland, Ohio 44140, USA

[2]Department of Pharmacology, Cleveland Center for Membrane and Structural Biology, School of Medicine, Case Western Reserve University, Cleveland, Ohio 44140, USA.

[3]Department of Ophthalmology, School of Medicine, Case Western Reserve University, Cleveland, Ohio 44140, USA.

[4] These authors contributed equally to this work.

Correspondence to: Dr. Zheng-Rong Lu Email: zxl125@case.edu

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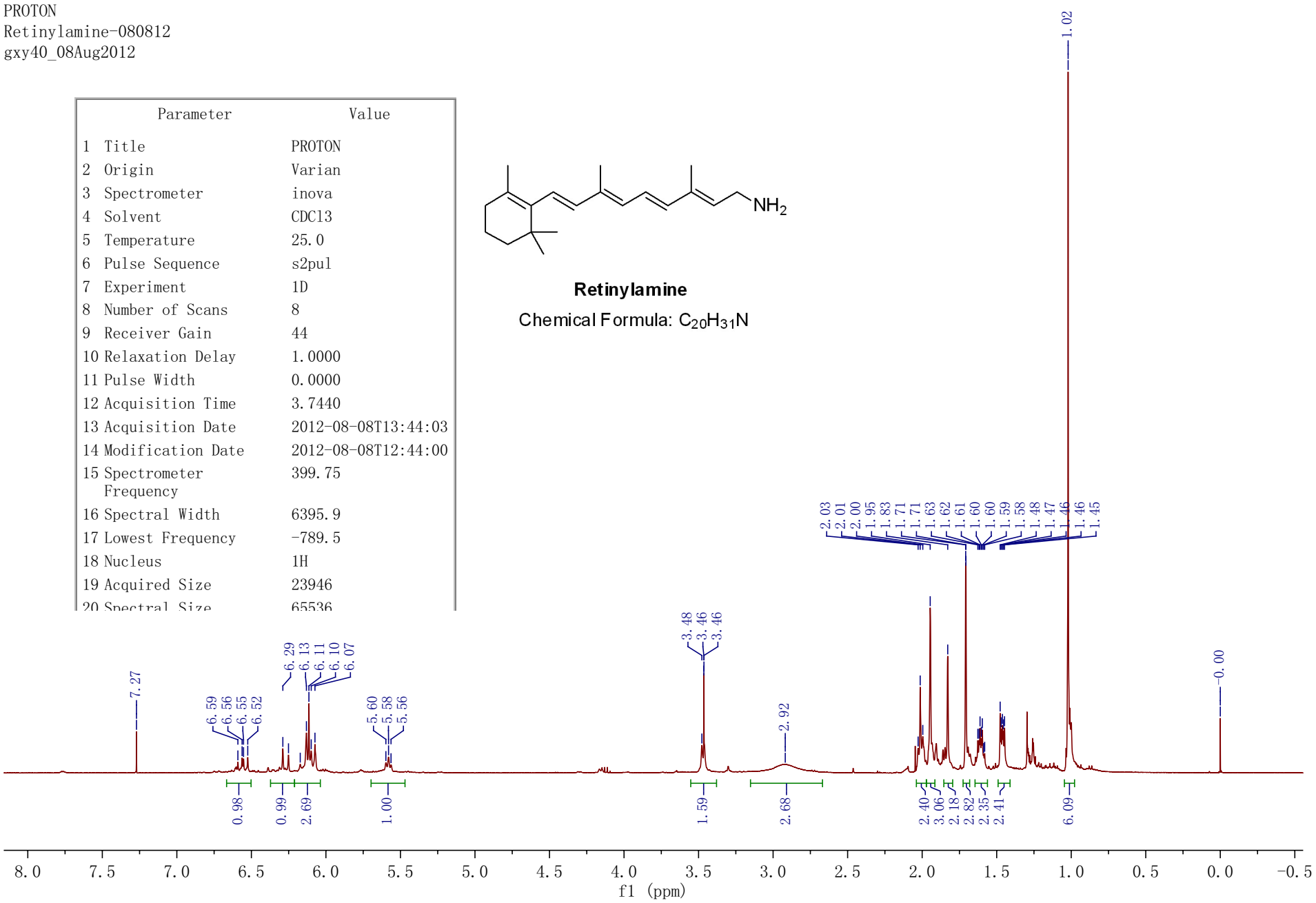

Fig. 1. ^{1}H NMR spectrum of retinylamine (Ret-NH_2)

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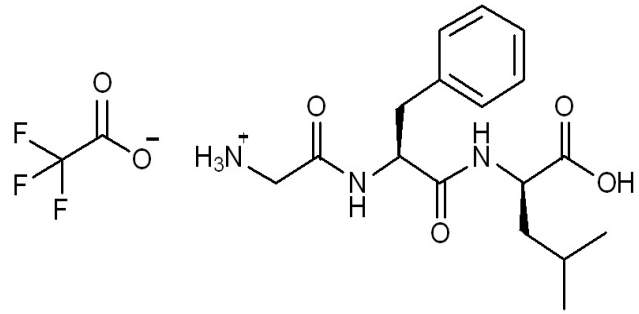

NH_2-GFL-OH•TFA

Chemical Formula: $C_{19}H_{26}F_3N_3O_6$

Fig. 2. ^{1}H NMR spectrum of peptide NH_2-GFL-OH·TFA

PROTON
PEG-PA
Acetone-d6

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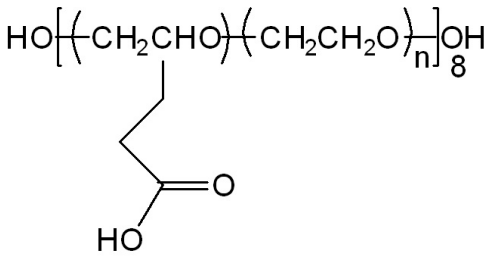

PEG-8PA

Fig. 3. ^{1}H NMR spectrum of starting material PEG-8PA

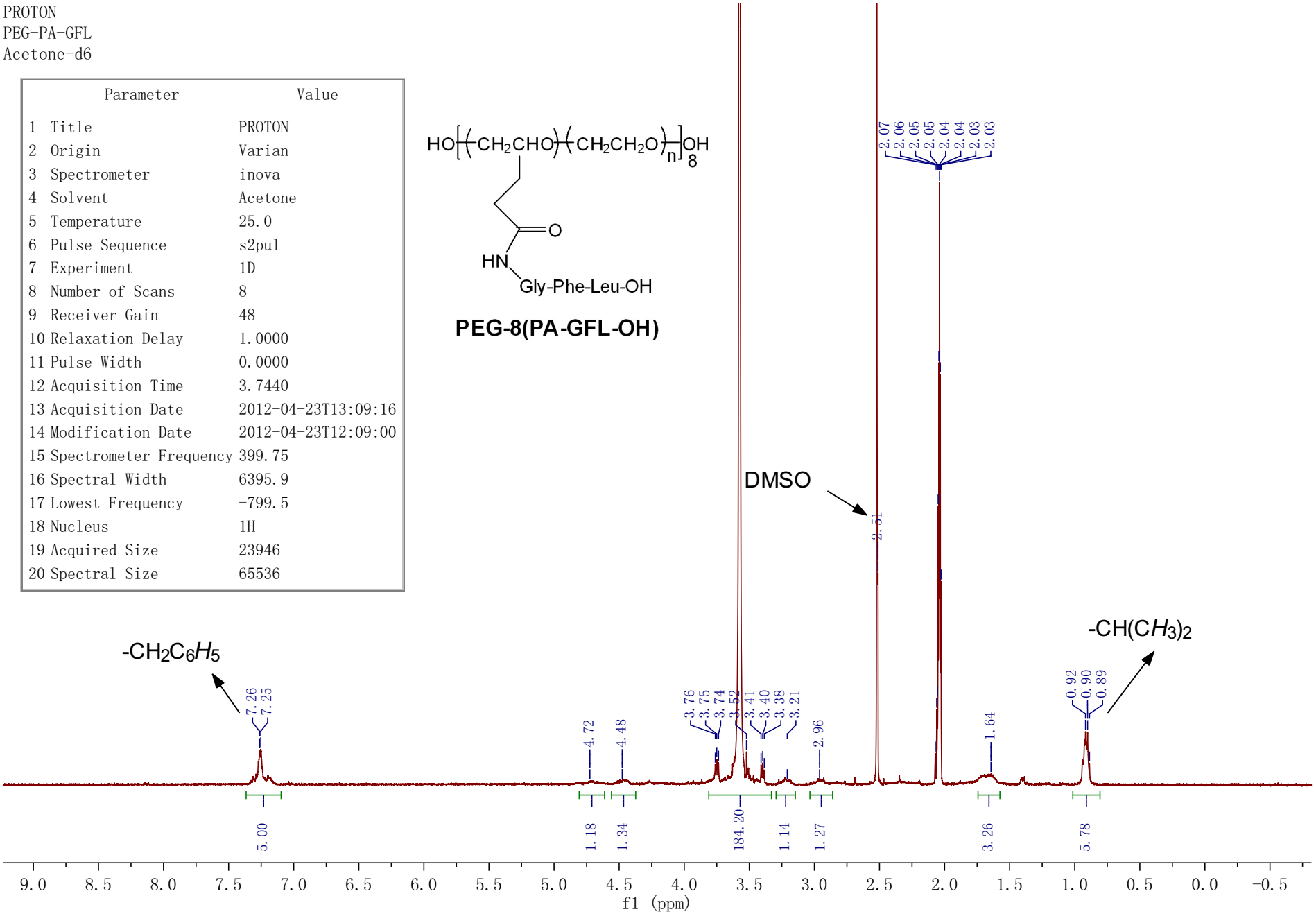

Fig. 4. ^{1}H NMR spectrum of intermediate PEG-8(PA-GFL-OH)

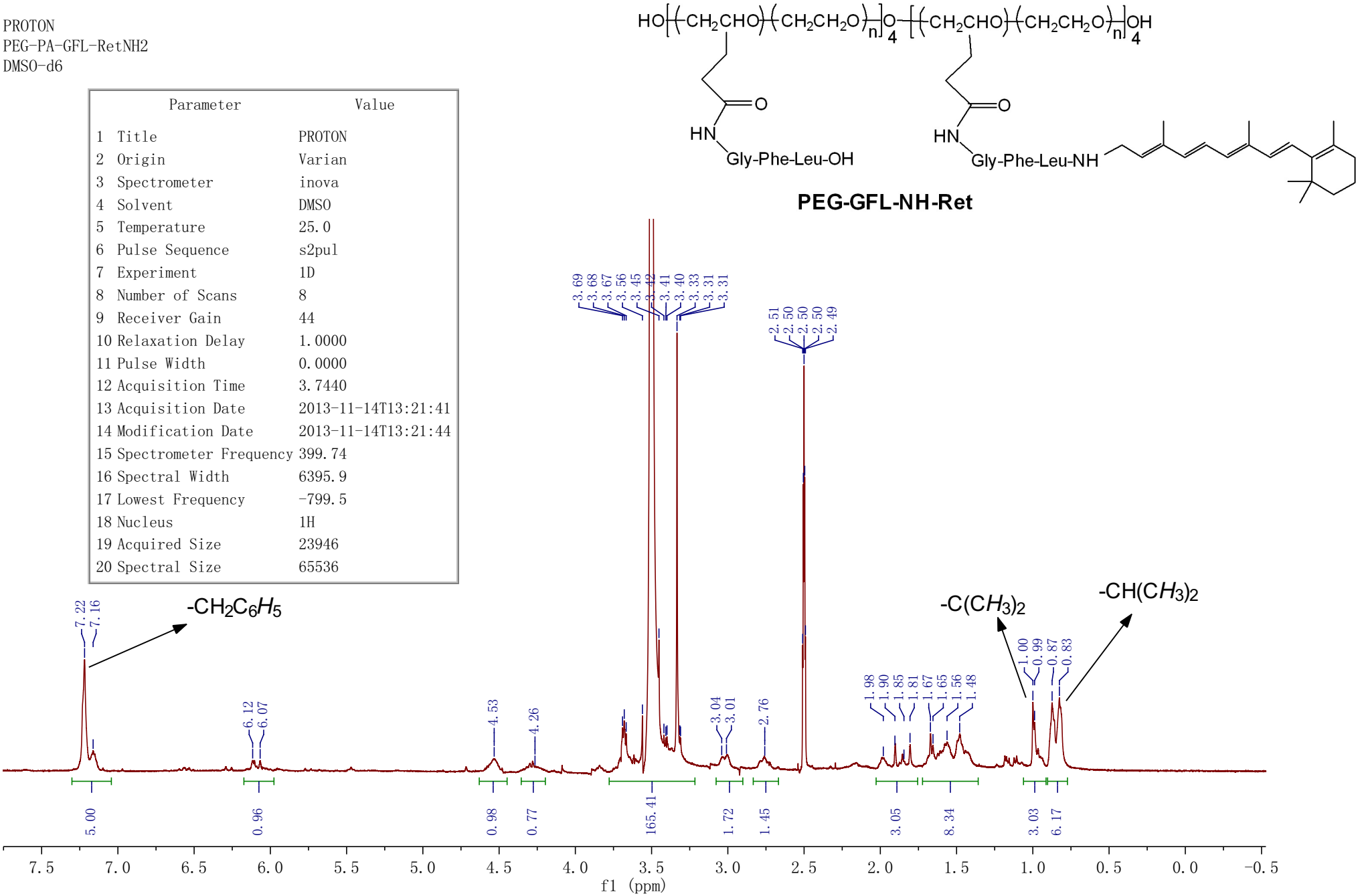

Fig. 5. ^{1}H NMR spectrum of PEG-GFL-NH-Ret conjugate

PROTON
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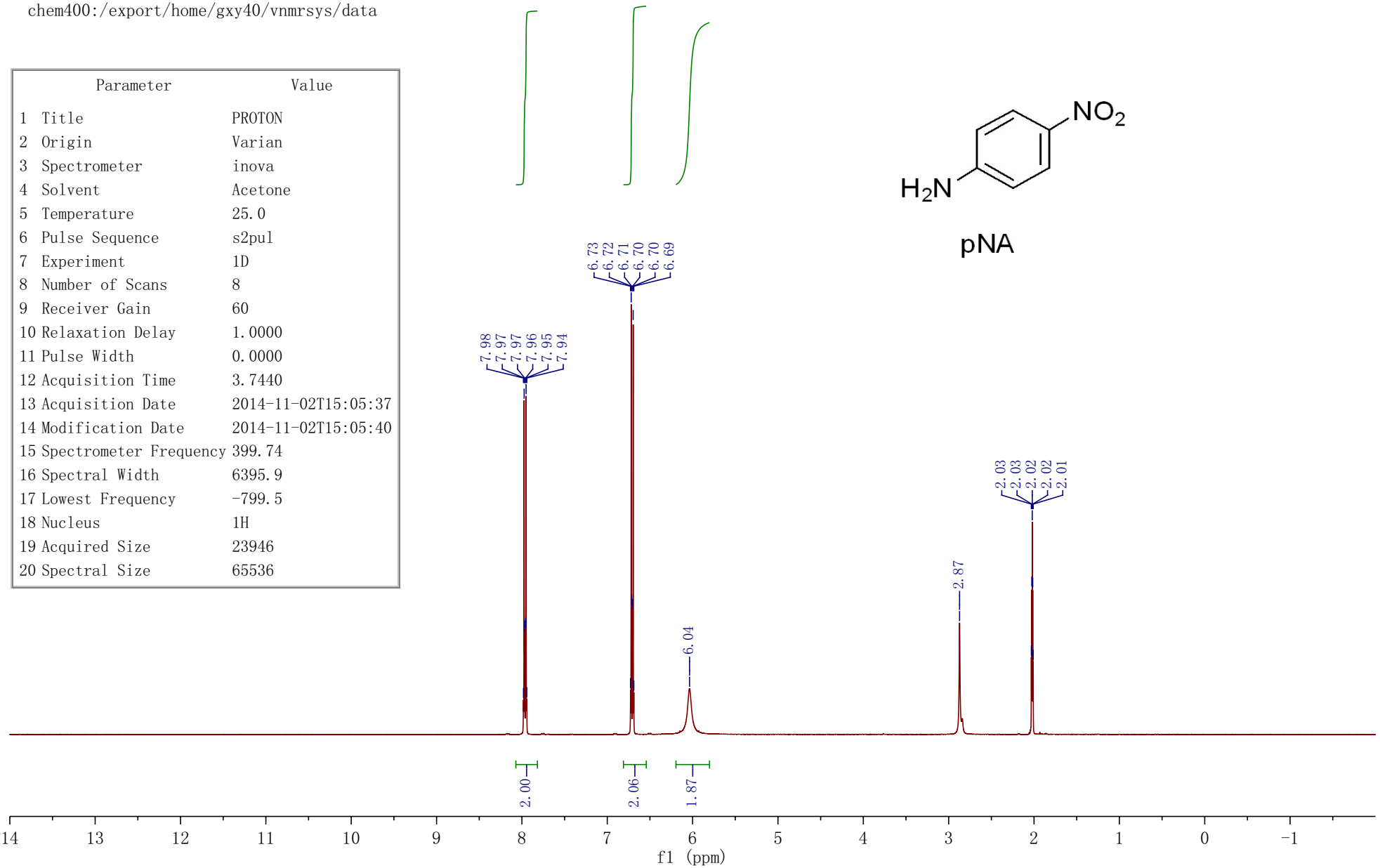

Fig. 6. ^{1}H NMR spectrum of *p*-nitroaniline (pNA)

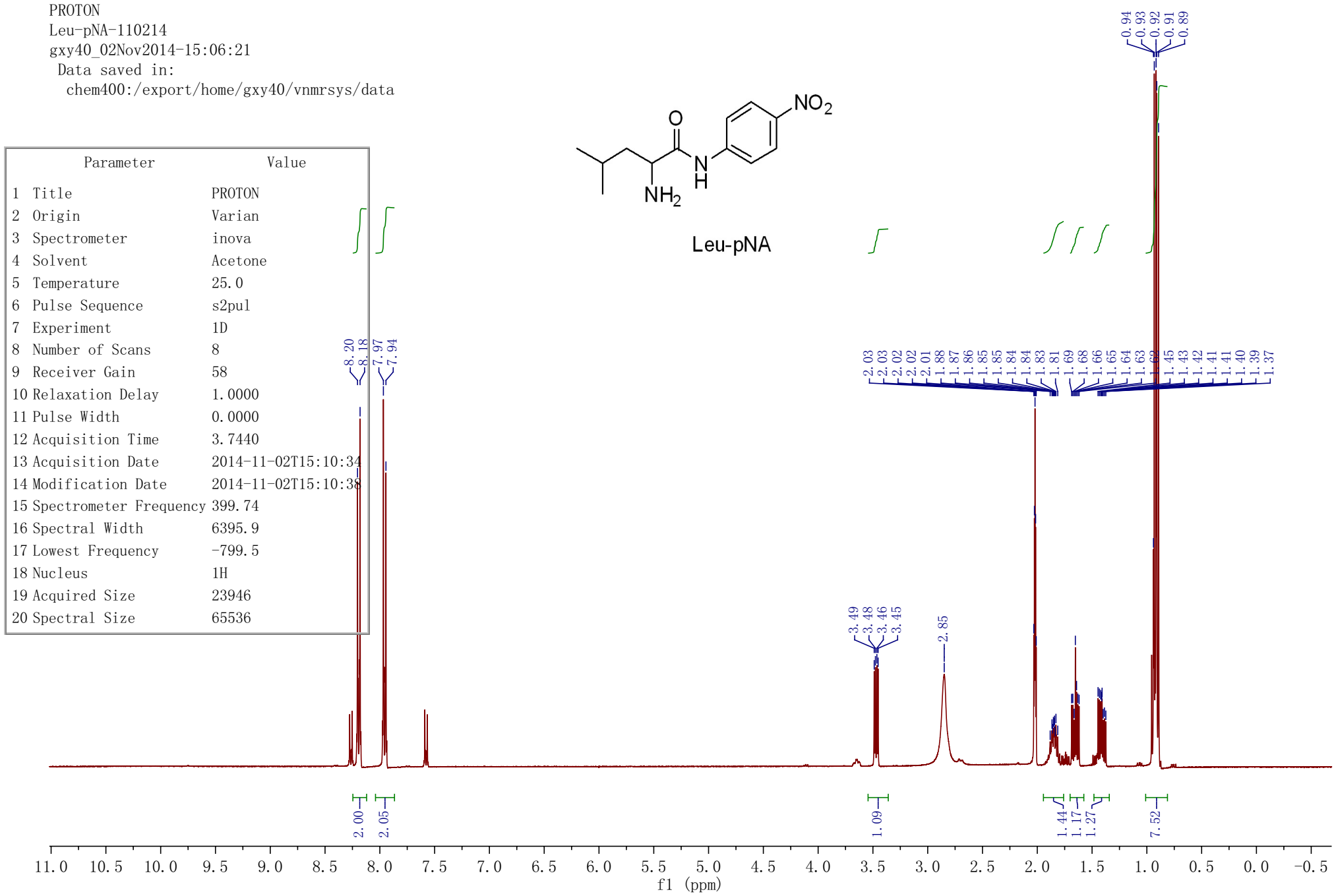

Fig. 7. ^{1}H NMR spectrum of Leu-pNA

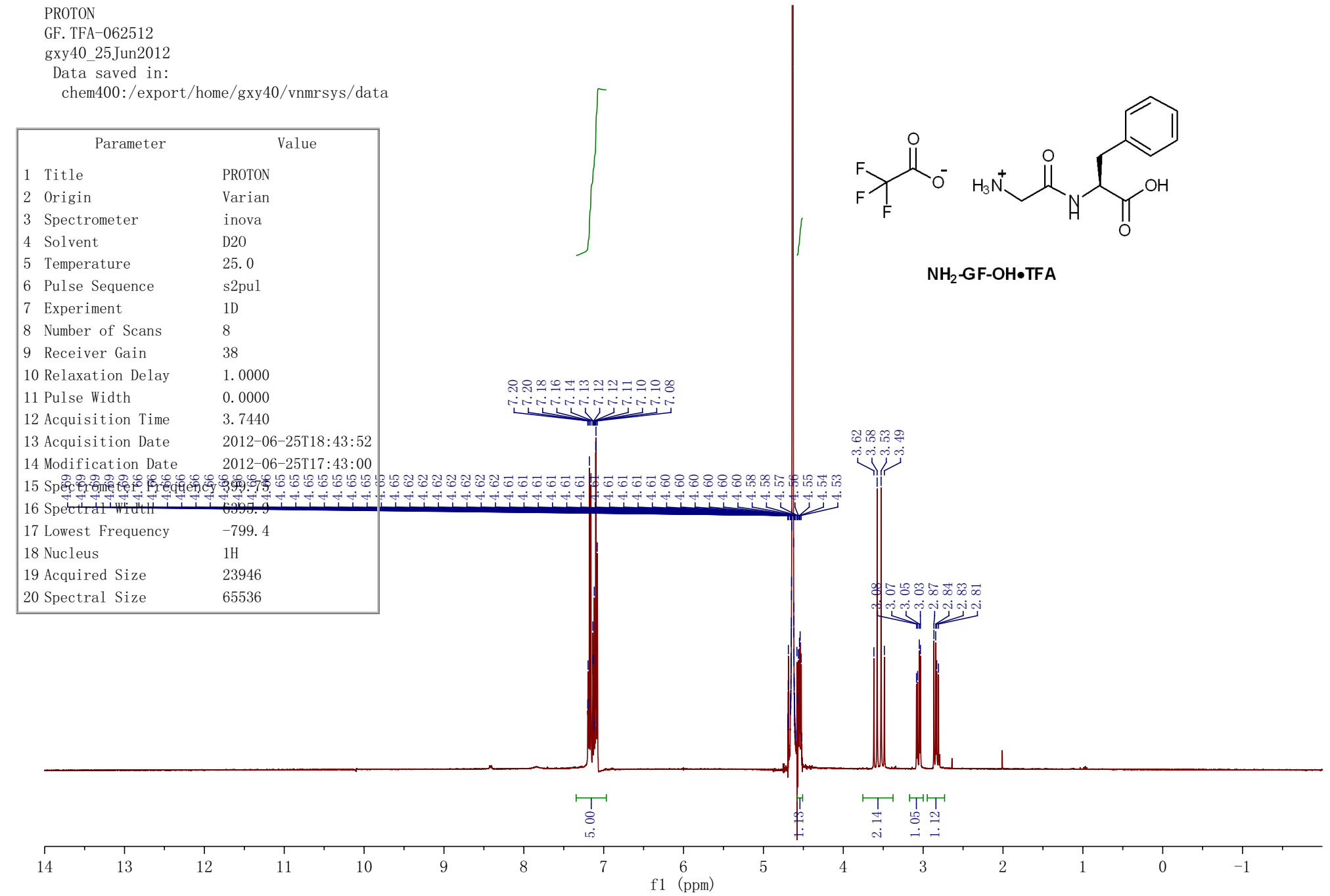

Fig. 8. ^{1}H NMR spectrum of peptide NH_2-GF-OH·TFA

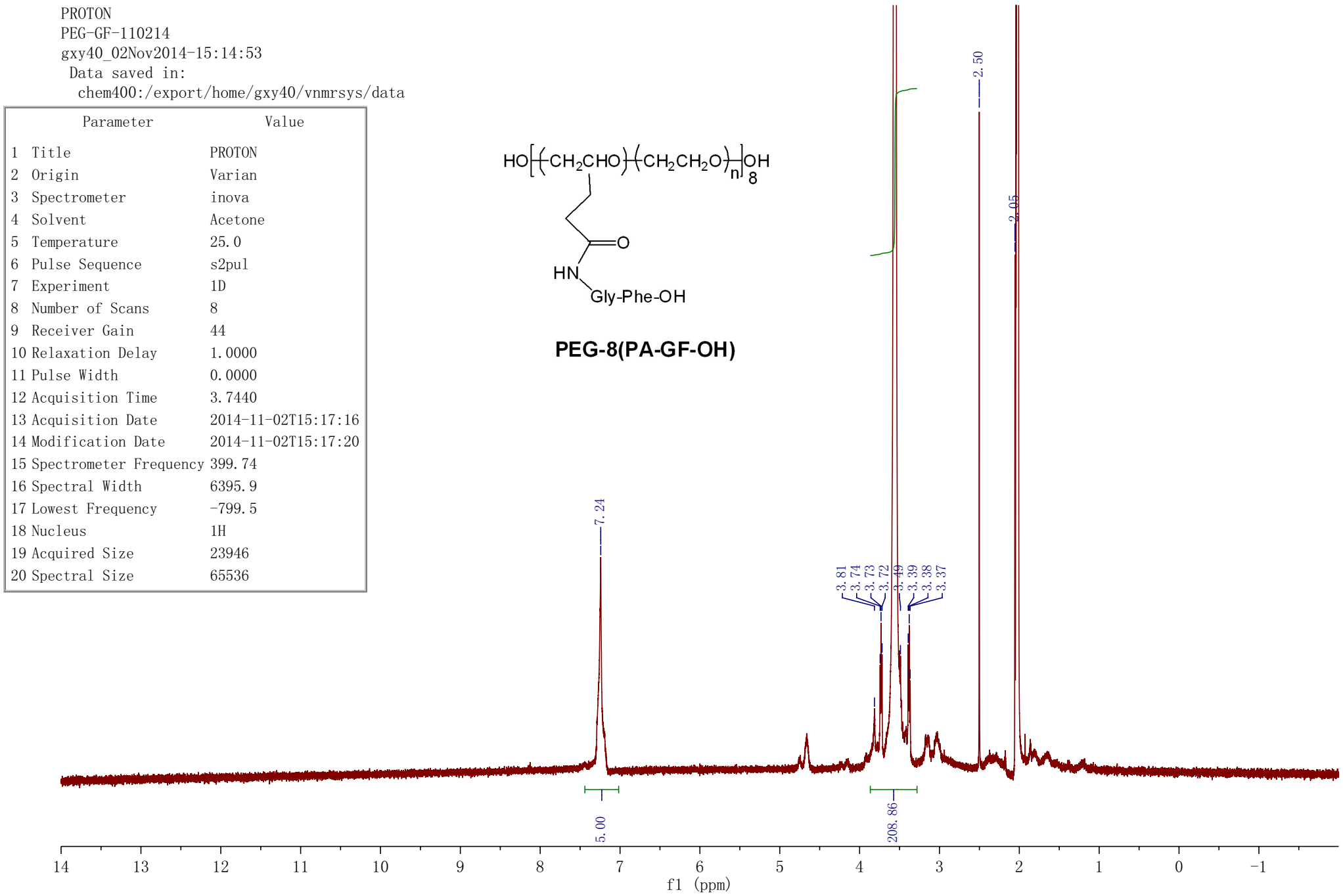

Fig. 9. ^{1}H NMR spectrum of intermediate PEG-8(PA-GF-OH)

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gxy40_03Nov2014
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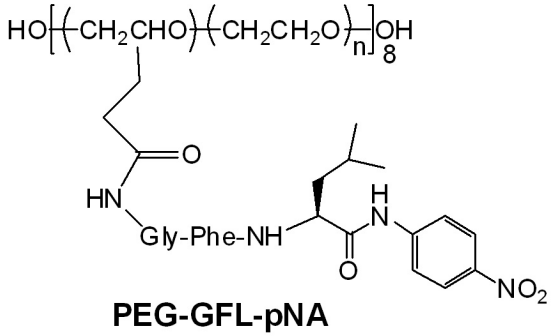

PEG-GFL-pNA

Fig. 10. ^{1}H NMR spectrum of PEG-GFL-pNA conjugate

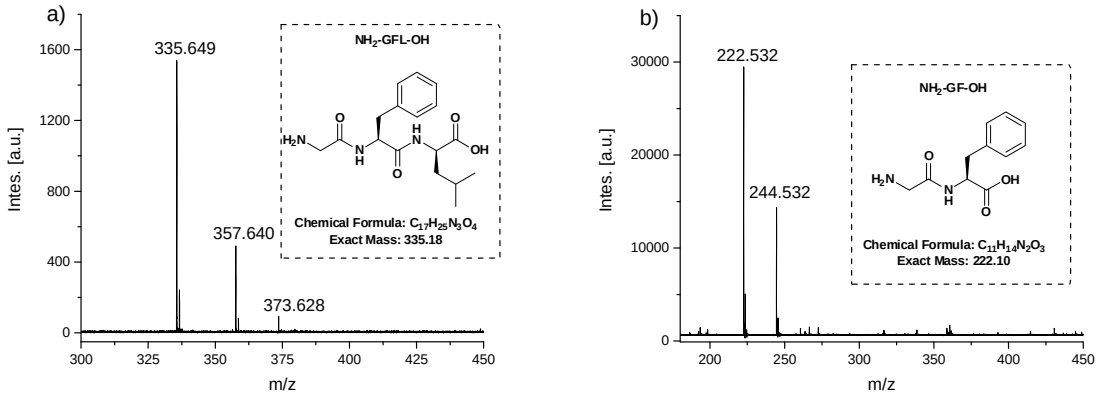

Fig 11. MALDI-TOF spectrum of peptide linker. a) NH_2-GFL-OH, b) NH_2-GF-OH

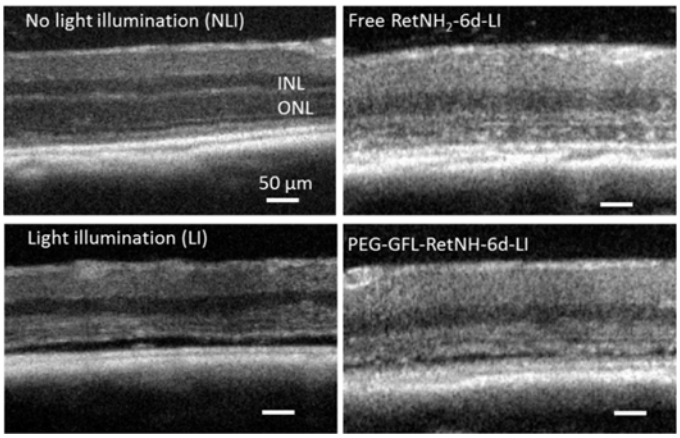

Fig. 12. OCT images indicate representative morphology of *Abca4*$^{-/-}$*Rdh8*$^{-/-}$ mouse retinas for 6 day pretreatment. Scale bar indicates 50 μm in the OCT image.