Supporting material for

Discovery of Eicosapentaenoic Acid Esters of Hydroxy Fatty Acids as Potent Nrf2 activators

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Figure S1: Reporter gene (luciferase) assay results of oleic acid, linoleic acid esters of 12-HSA and 12-HOA and free fatty acids (EPA and 12-HSA)

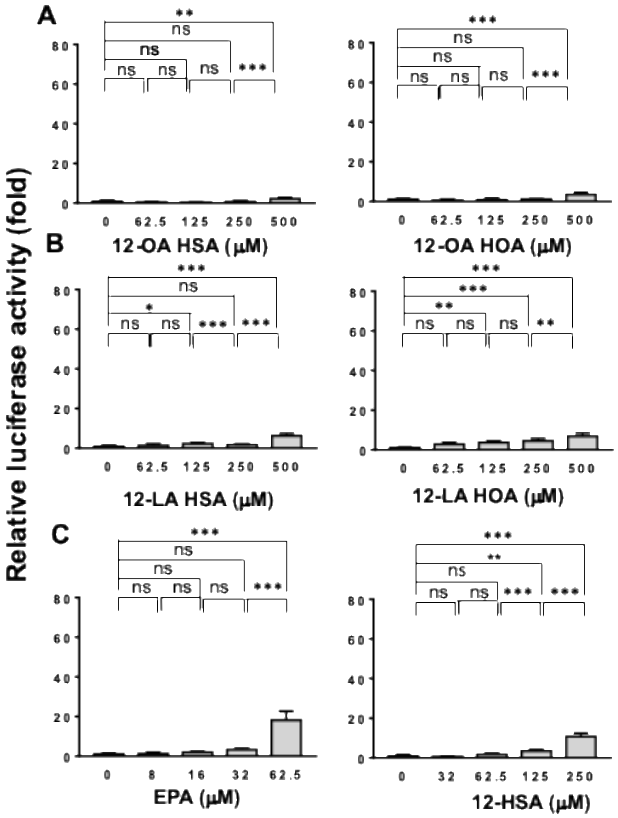


Figure S2: Relative expression of DDIT3 (CHOP) (NM001195053) in response to 12-EPAHSA treatment. **p<0.01, (one-way ANOVA) (n=6).

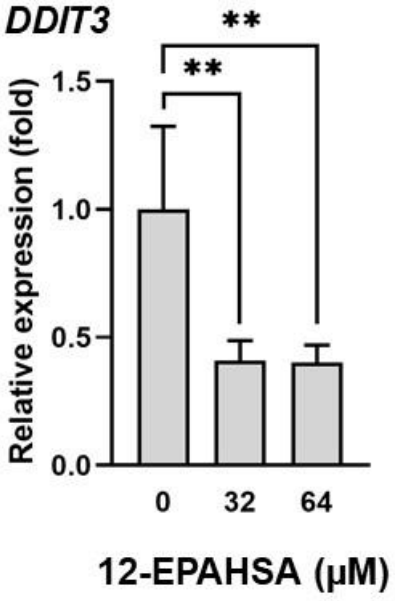
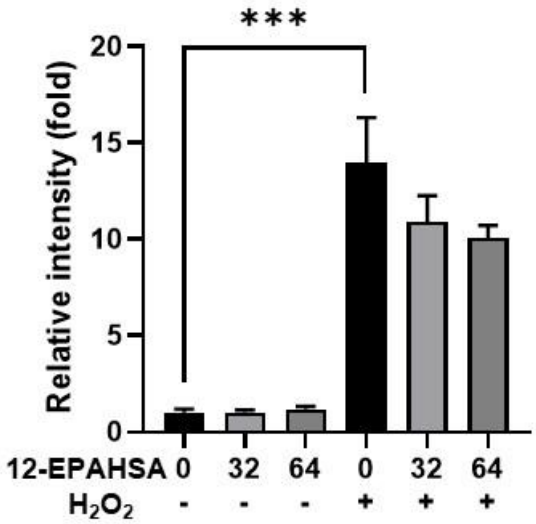
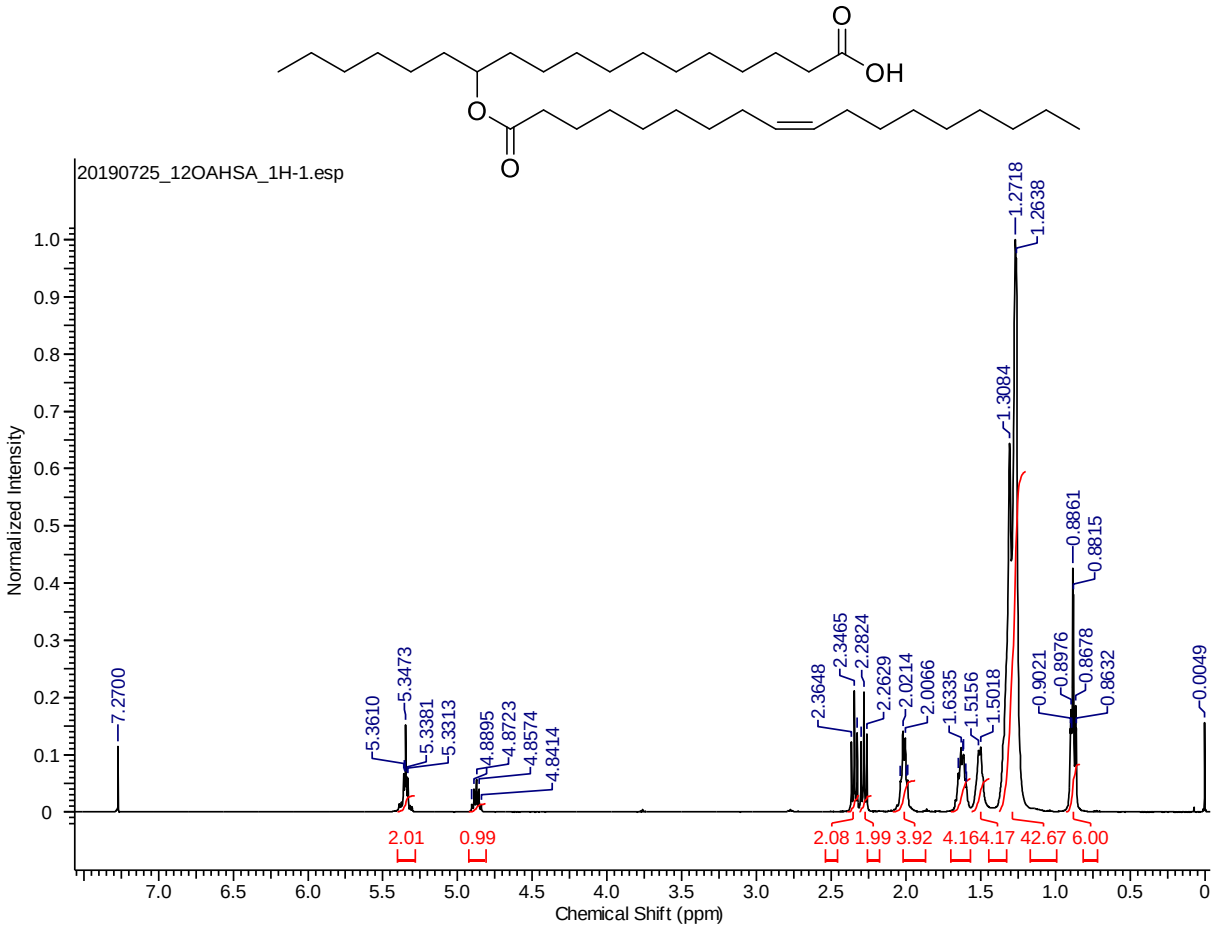


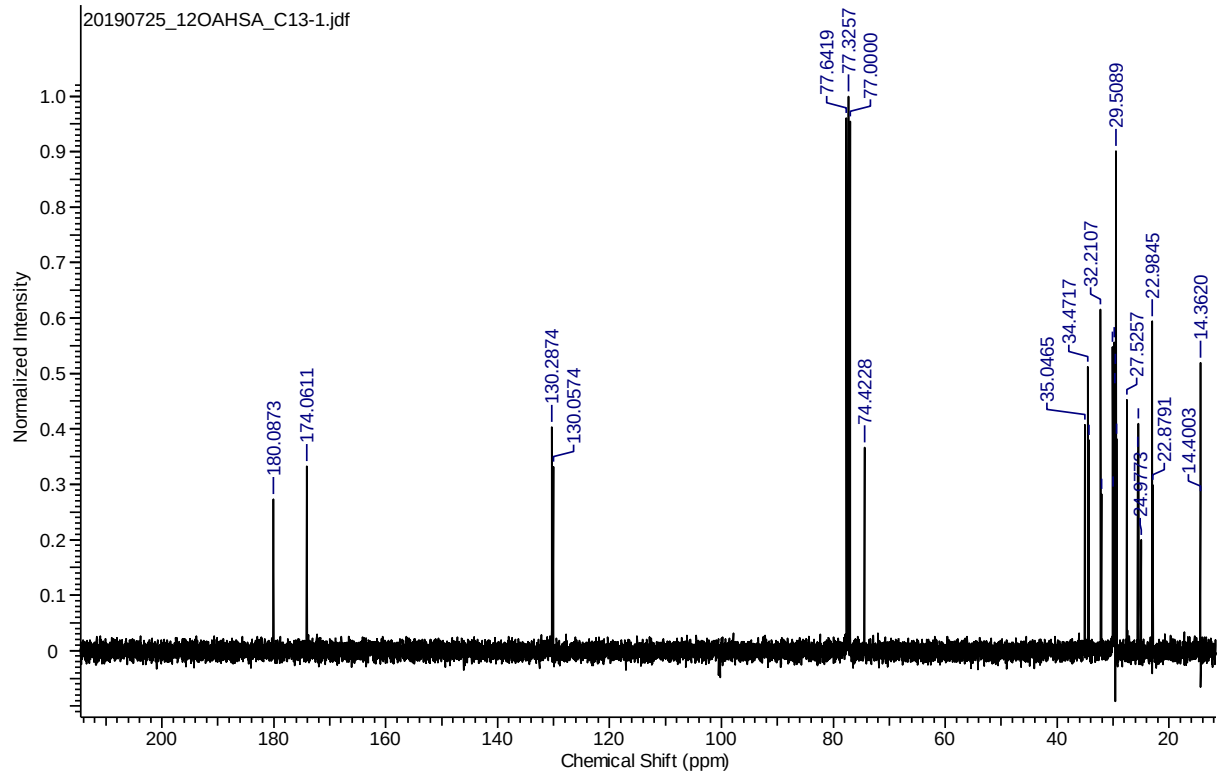
Figure S3: Relative intensity folds of oxidative stress induced by H_2O_2 and effect of 12-EPAHSA treatment. ***p<0.001, (one-way ANOVA) (n=6 for control and n=4 for H_2O_2). The cellular oxidative stress due to H_2O_2-induced ROS was measured by the dichlorofluorescein-diacetate (DCFH-DA) assay with the protocol established in our laboratory [17-18]. A condition of cellular stress in HepG2 cells is evoked by treating 0.25 mM H_2O_2 for 30 min, and fluorescence intensity was read at 485 (excitation) and 525 (emission) nm using Wallac 1420 ARVO Mx plate reader (PerkinElmer, Japan).



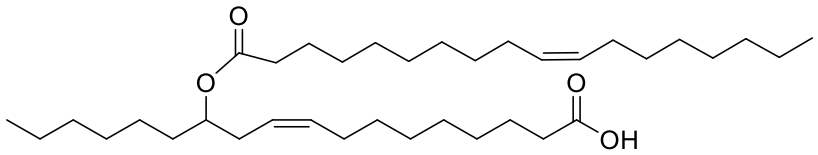
3. ^{1}H and ^{13}C-NMR spectra of FAHFAs

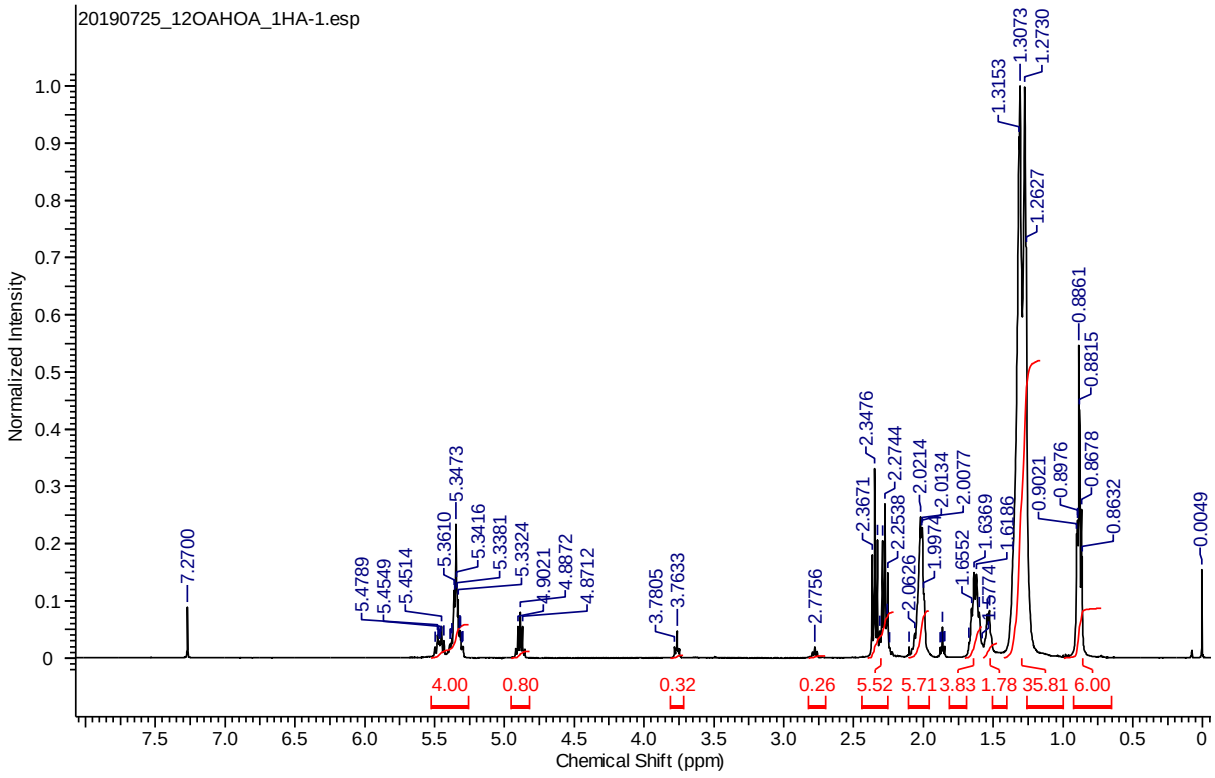
^{1}H and ^{13}C-NMR of 12-OAHSA (2)

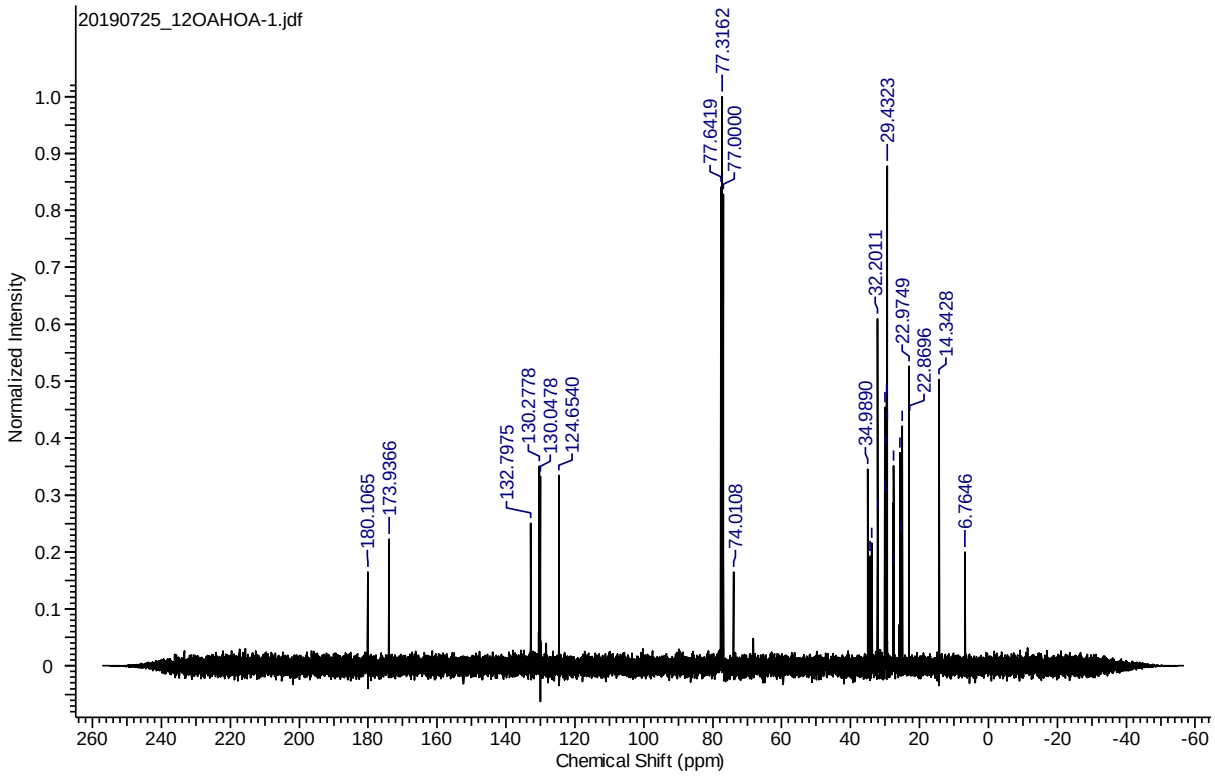




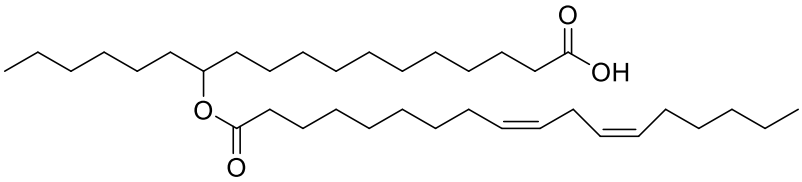
^{1}H and ^{13}C-NMR of 12-OAHOA (2a)

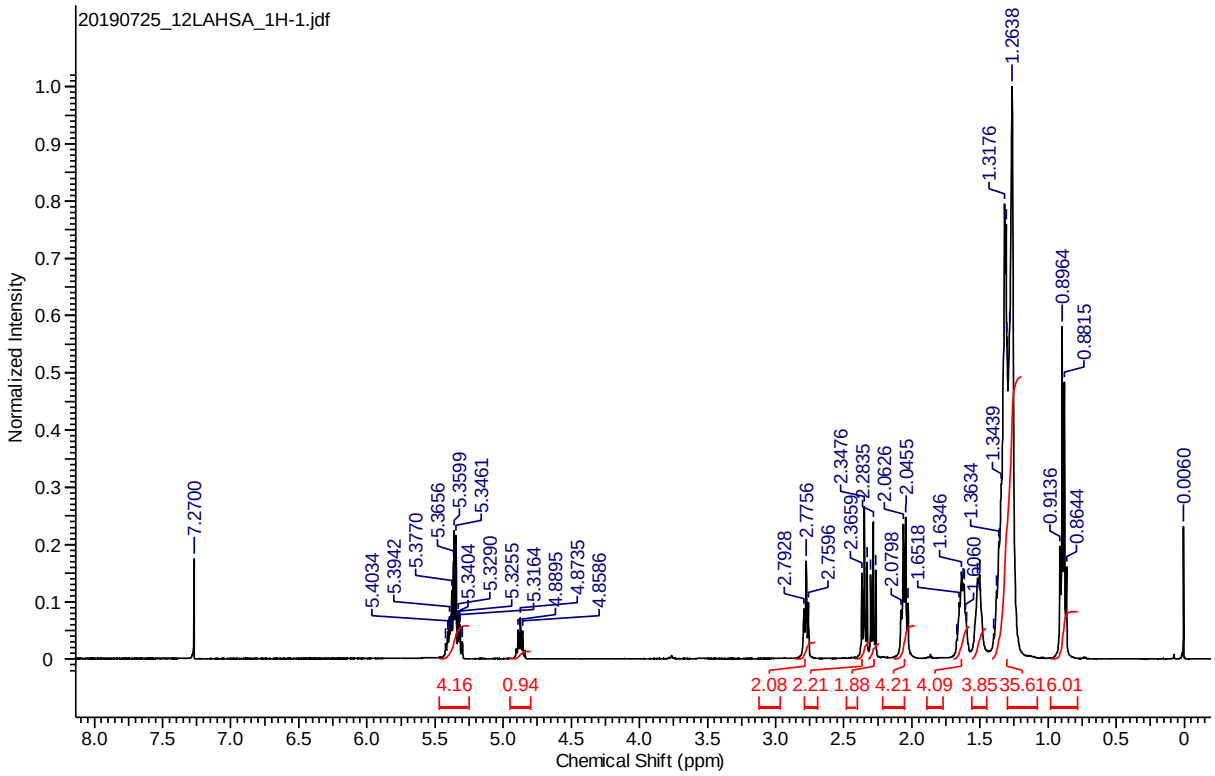


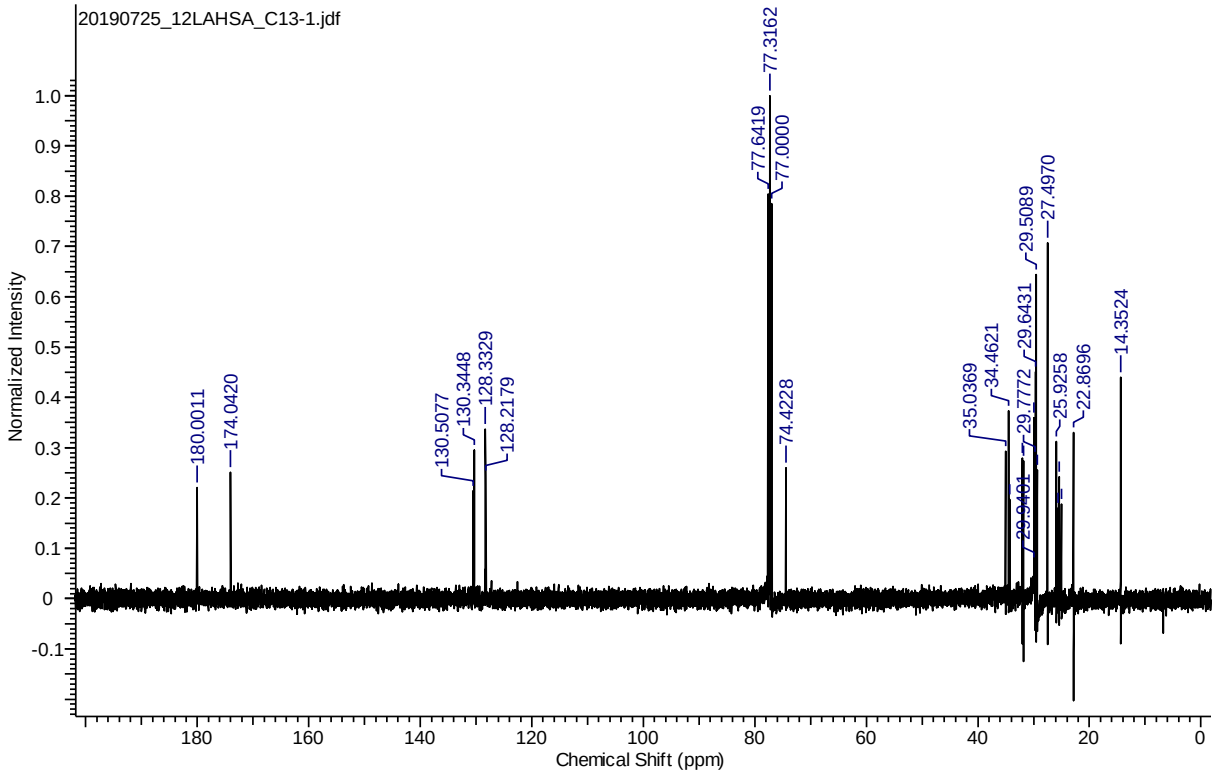




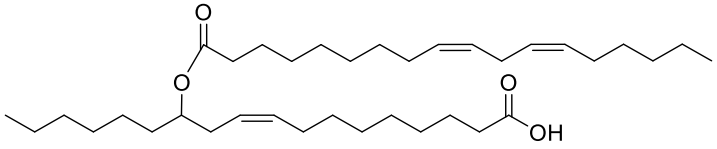
^{1}H and ^{13}C-NMR of 12-LAHSA (3)

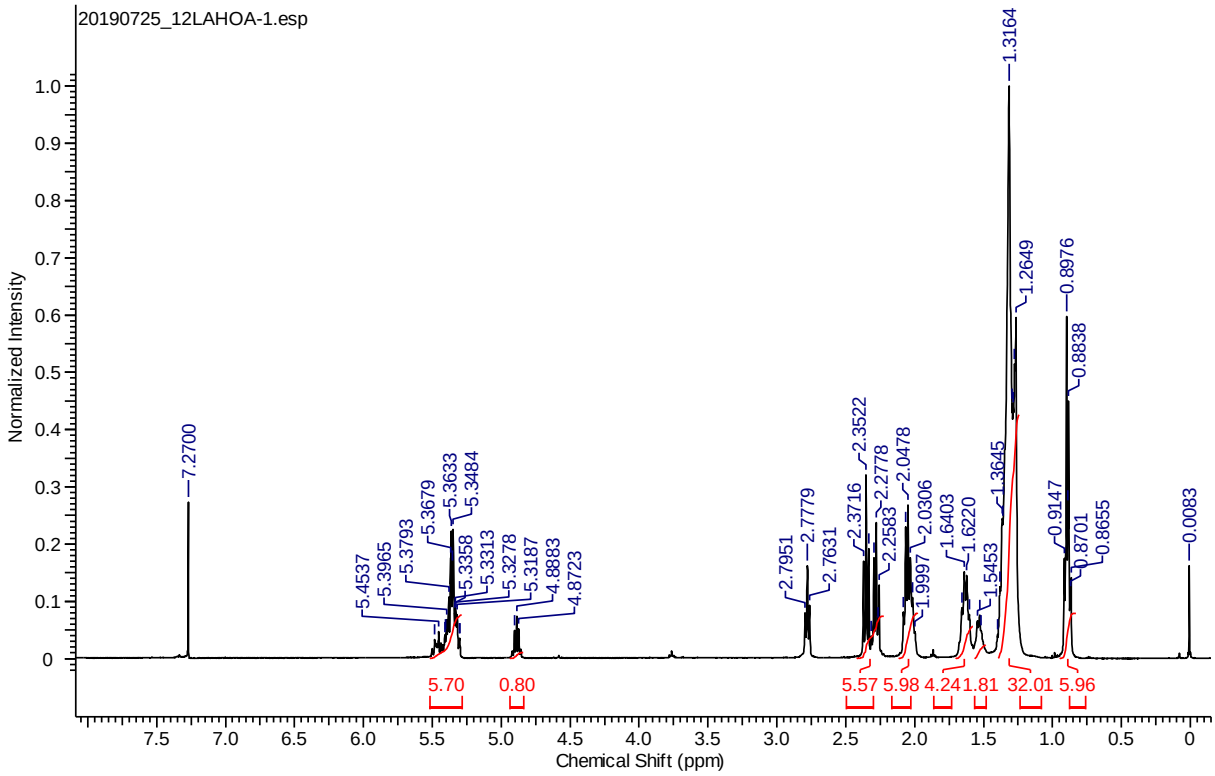


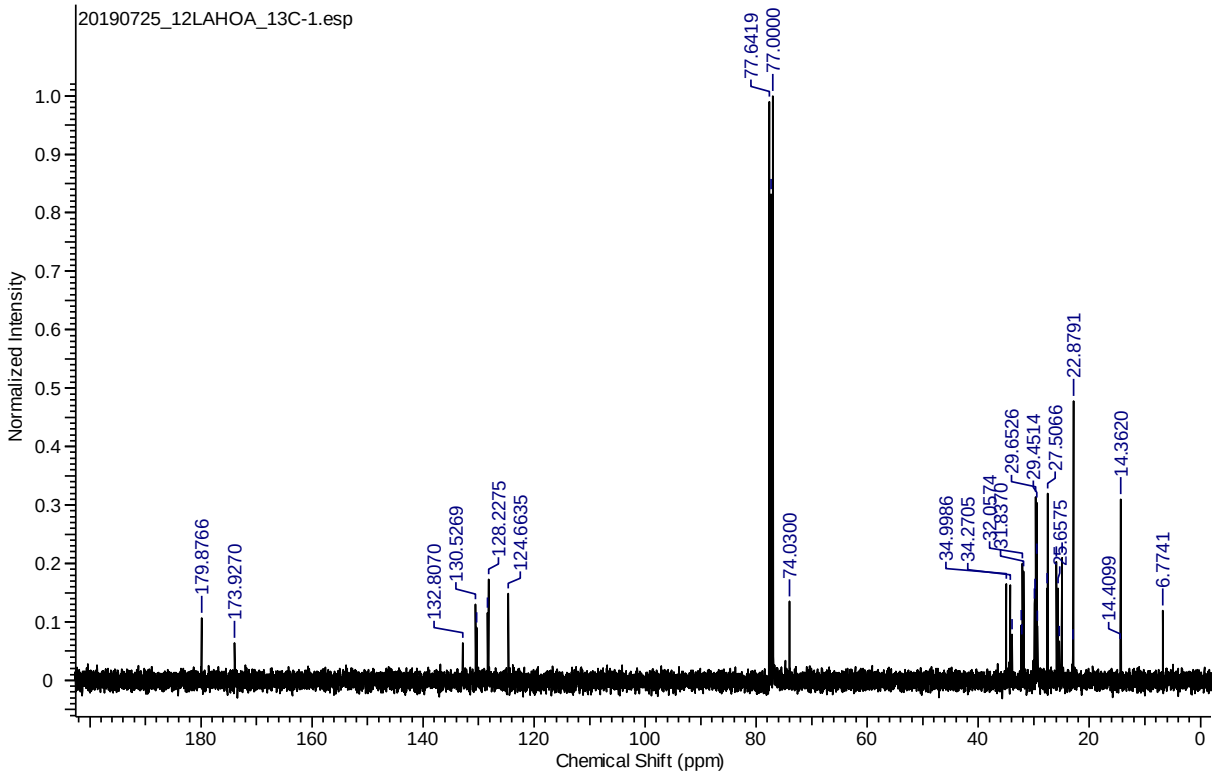




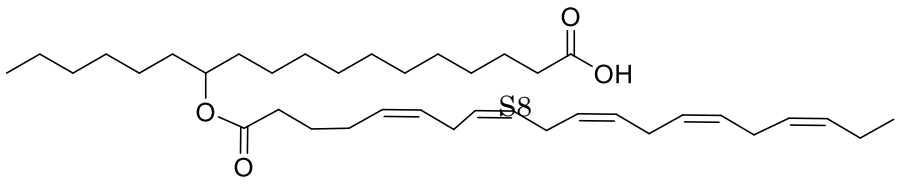
^{1}H and ^{13}C-NMR of 12-LAHOA (3a)

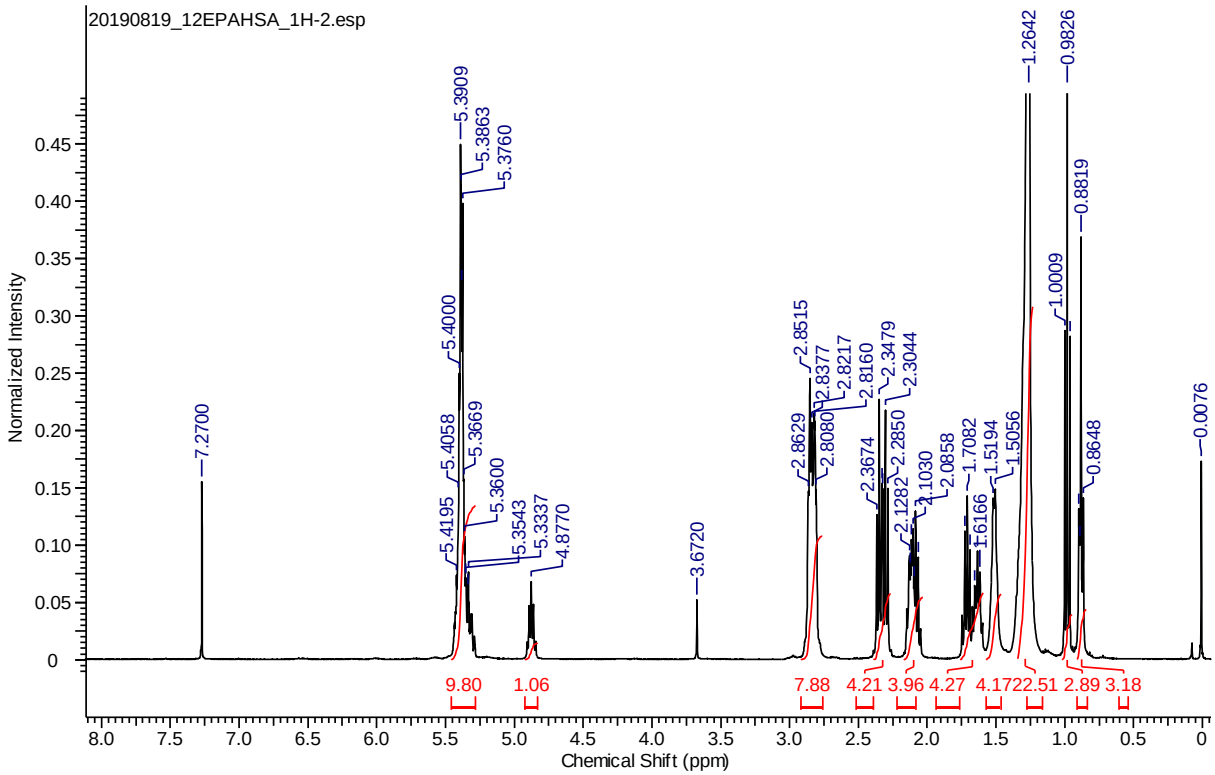






^{1}H and ^{13}C-NMR of 12-EPAHSA (4)

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5.3600
5.3543
5.3337
4.8770
3.6720
2.8629
2.8515
2.8377
2.8217
2.8160
2.8080
2.3674
2.3479
2.3044
2.2850
2.1282
2.1030
2.0858
1.7082
1.6166
1.5194
1.5056
1.2642
1.0009
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0.8819
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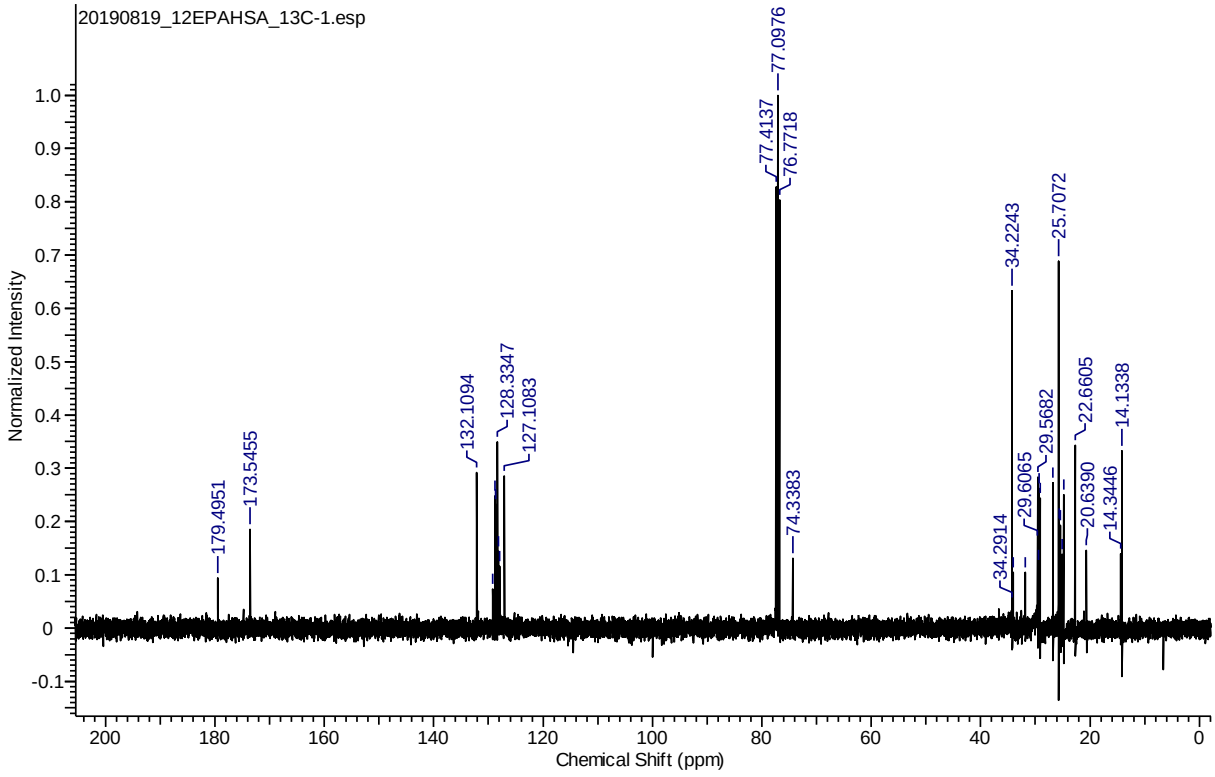
2.89
3.18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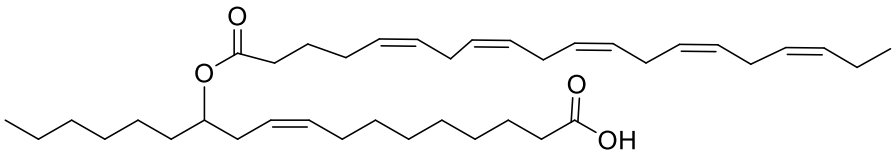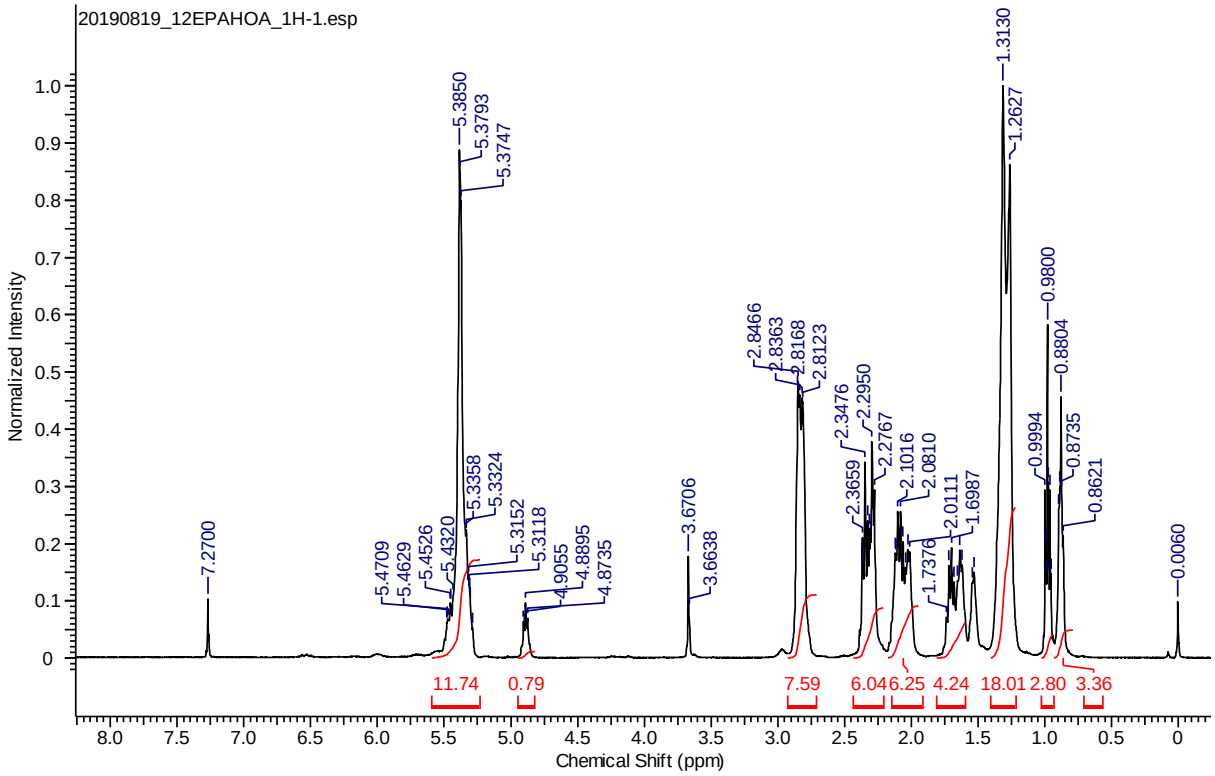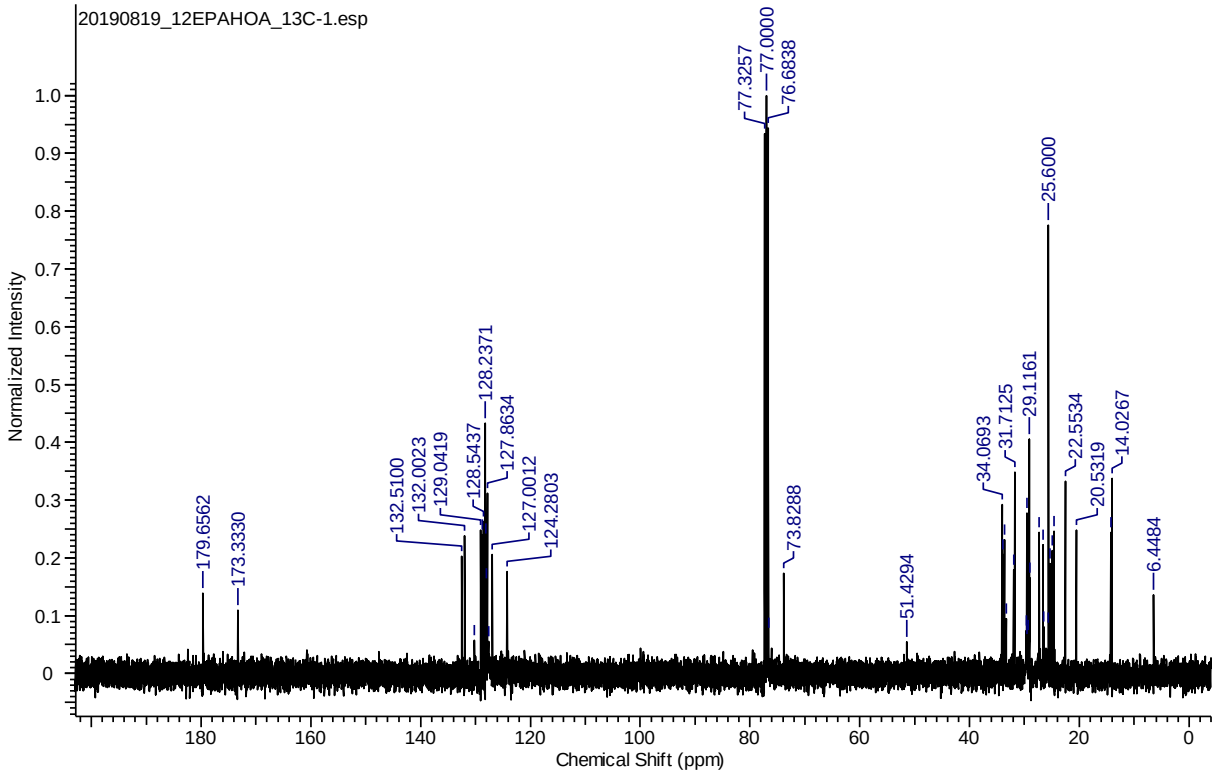
^{1}H and ^{13}C-NMR of 12-EPAHOA (4a)