

## Supplementary Data

### Oleacein prevents metabolic dysfunction–associated hepatic steatosis and dyslipidaemia in ApoE-KO mice

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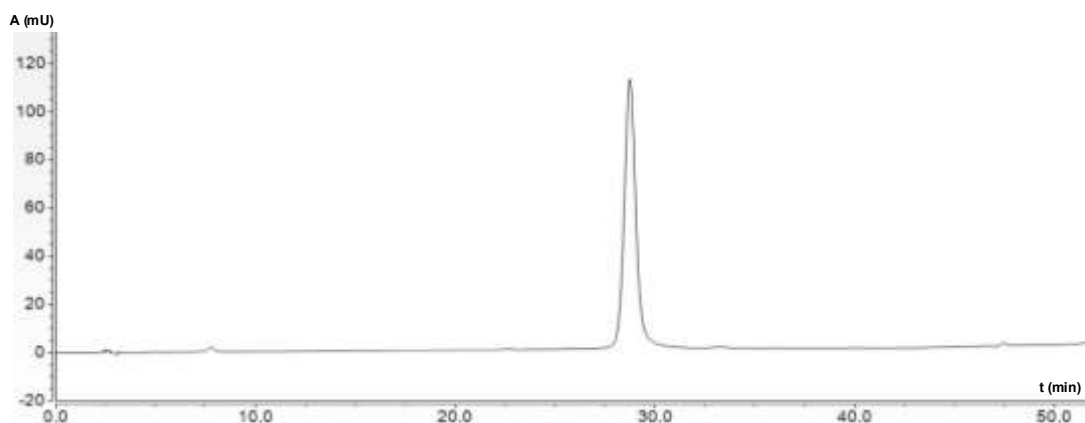
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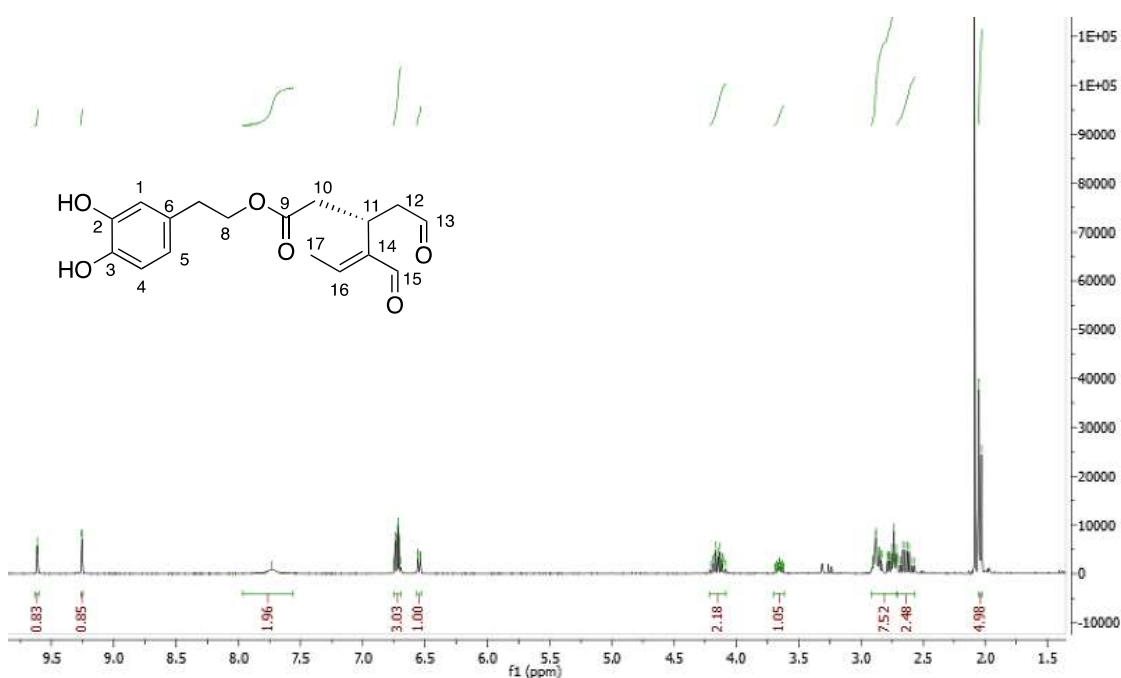
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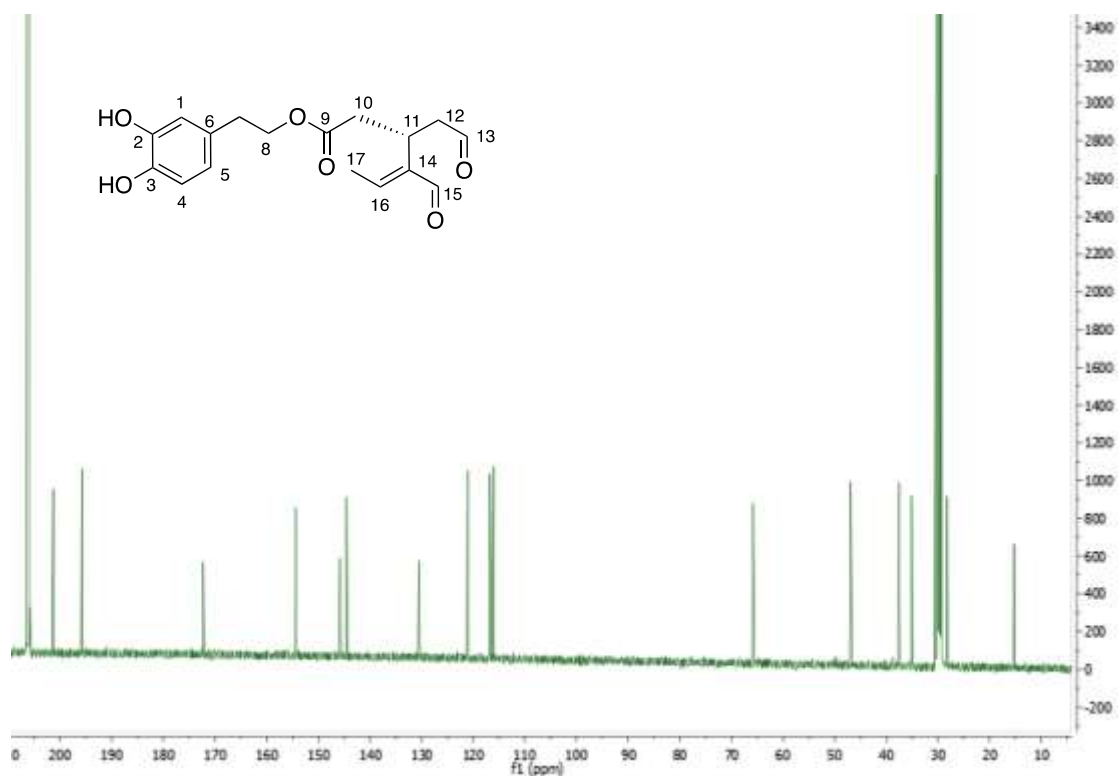


**Figure S1** – Chromatogram obtained by HPLC-DAD of an isolated fraction containing oleacein ( $\lambda = 280$  nm).



**Figure S2** –  $^1\text{H-NMR}$  spectra (400 MHz,  $(\text{CD}_3)_2\text{CO}$ ) of oleacein.

$^1\text{H-RMN}$  –  $((\text{CD}_3)_2\text{CO}$ , 400 MHz):  $\delta = 9,62$  (t,  $J = 1,2$  Hz, 1H, H-13), 9,26 (d,  $J = 2,0$  Hz, 1H, H-15), 7,73 (s, 2H, O-H), 6,73 (d,  $J = 8$  Hz, 1H, H-4), 6,72 (q,  $J = 7,2$  Hz, 1H, H-16), 6,71 (d,  $J = 2,4$  Hz, 1H, H-1), 6,55 (dd,  $J_{5,4} = 8$  Hz,  $J_{5,1} = 2,4$  Hz, 1H, H-5), 4,16 (dt,  $J_{8a,8b} = 25,2$  Hz,  $J_{8a,7} = 7,2$  Hz, 1H, H-8a), 4,13 (dt,  $J_{8b,8a} = 25,2$  Hz,  $J_{8b,7} = 7,2$  Hz, 1H, H-8b), 3,66 (m,  $J_{11,16} = 2,4$  Hz,  $J_{11,10a} = J_{11,12a} = 8,4$  Hz,  $J_{11,10b} = J_{11,12b} = 6$  Hz, 1H, H-11), 2,87 (ddd,  $J_{12a,12b} = 18$  Hz,  $J_{12a,11} = 8,8$  Hz,  $J_{12a,13} = 1,6$  Hz, 1H, H-12a), 2,76 (ddd,  $J_{12b,12a} = 18$  Hz,  $J_{12b,11} = 6$  Hz,  $J_{12b,13} = 1,2$  Hz, 1H, H-12b), 2,73 (t,  $J = 7,2$  Hz, 2H, H-7), 2,68 (dd,  $J_{10a,10b} = 15,6$  Hz,  $J_{10a,11} = 9,2$  Hz, 1H, H-10a), 2,60 (dd,  $J_{10b,10a} = 15,6$  Hz,  $J_{10b,11} = 6$  Hz, 1H, H-10b) and 2,04 (d,  $J = 7,2$  Hz, 3H, H-17) ppm.



**Figure S3** –  $^{13}\text{C}$ -NMR spectra (100 MHz,  $(\text{CD}_3)_2\text{CO}$ ) of oleacein.

$^{13}\text{C}$ -RMN –  $(\text{CD}_3)_2\text{CO}$ , 101 MHz):  $\delta$  = 201,4 (C-13), 195,7 (C-15), 172,3 (C-9), 154,4 (C-16), 145,9 (C-2), 144,6 (C-3), 144,4 (C14), 130,6 (C-6), 121,1 (C-5), 116,9 (C-1), 116,2 (C-4), 65,8 (C-8), 47,0 (C-12), 37,1 (C-10), 30,7 (C-7), 28,3 (C-11) and 15,3 (C-17) ppm.