

Table S1 Mass spectrometry ion peaks and fragment data of four lutein esters in marigold extract

Name	Characteristic ion fragments
Lutein dimyristate	989.21 [M] ⁺ , 761.90 [M+H-228 (C14)] ⁺ , 669.83 [M+H-228 (C14)-92], 533.58 [M+H-228 (C+14)-228 (C14)] ⁺
Lutein myristate-palmitate	1017.24 [M] ⁺ , 789.95 [M+H-228 (C14)] ⁺ , 761.91 [M+H-256 (C16)] ⁺ , 669.80 [M+H-256 (C16)-92], 533.60 [M+H-228 (C+14)-256 (C16)] ⁺
Lutein dipalmitate	1045.29 [M] ⁺ , 789.92 [M+H-256 (C16)] ⁺ , 697.85 [M+H-256 (C16)-92], 533.58 [M+H-256 (C+16)-256 (C16)] ⁺
Lutein palmitate-stearate	1073.40 [M] ⁺ , 817.98 [M+H-[M+H-256 (C16)] ⁺], 789.94 [M+H-284 (C18)] ⁺ , 725.88 [M+H-256 (C16)-92], 533.60 [M+H-228 (C+14)-256 (C16)] ⁺