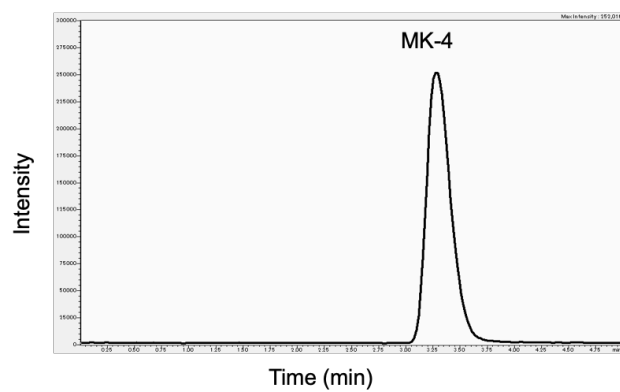
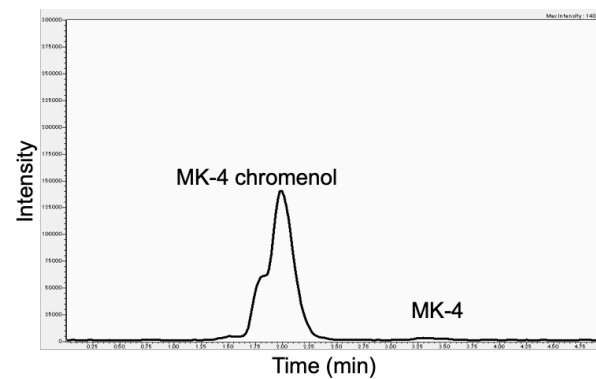


Supplemental Figure

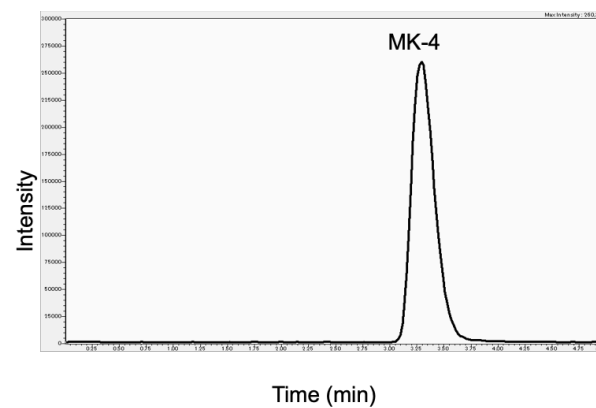
(A)



Irradiation

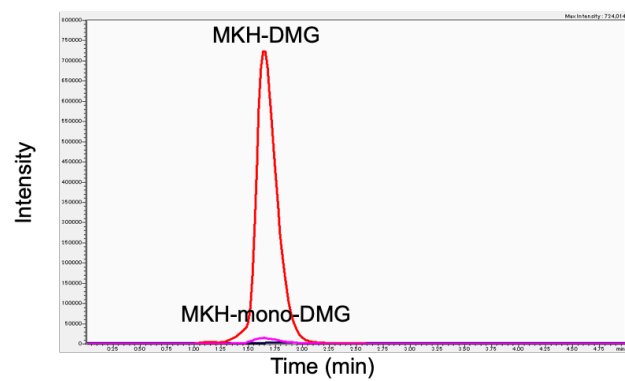


Shading

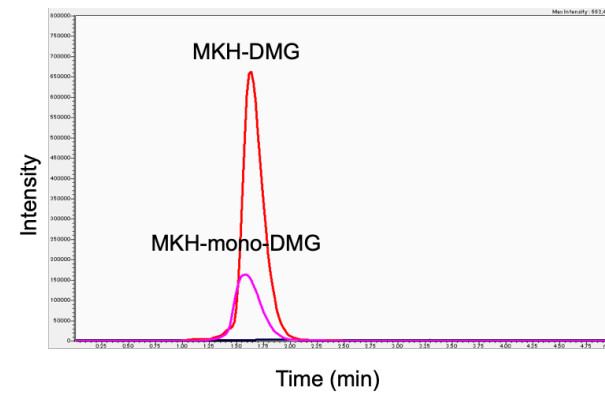


- MK-4 or MK-4 chromenol (m/z 445 → 187)
- MKH-DMG (m/z 619 → 58)
- MKH-mono-DMG (m/z 532 → 58)
- MKH-SUC (m/z 664 → 187)
- MKH-mono-SUC (m/z 564 → 187)

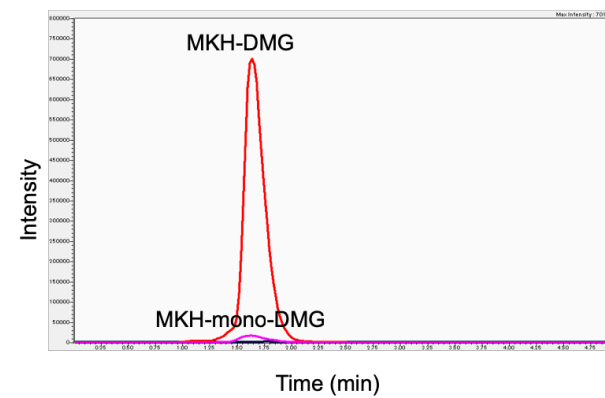
(B)



Irradiation



Shading



(C)

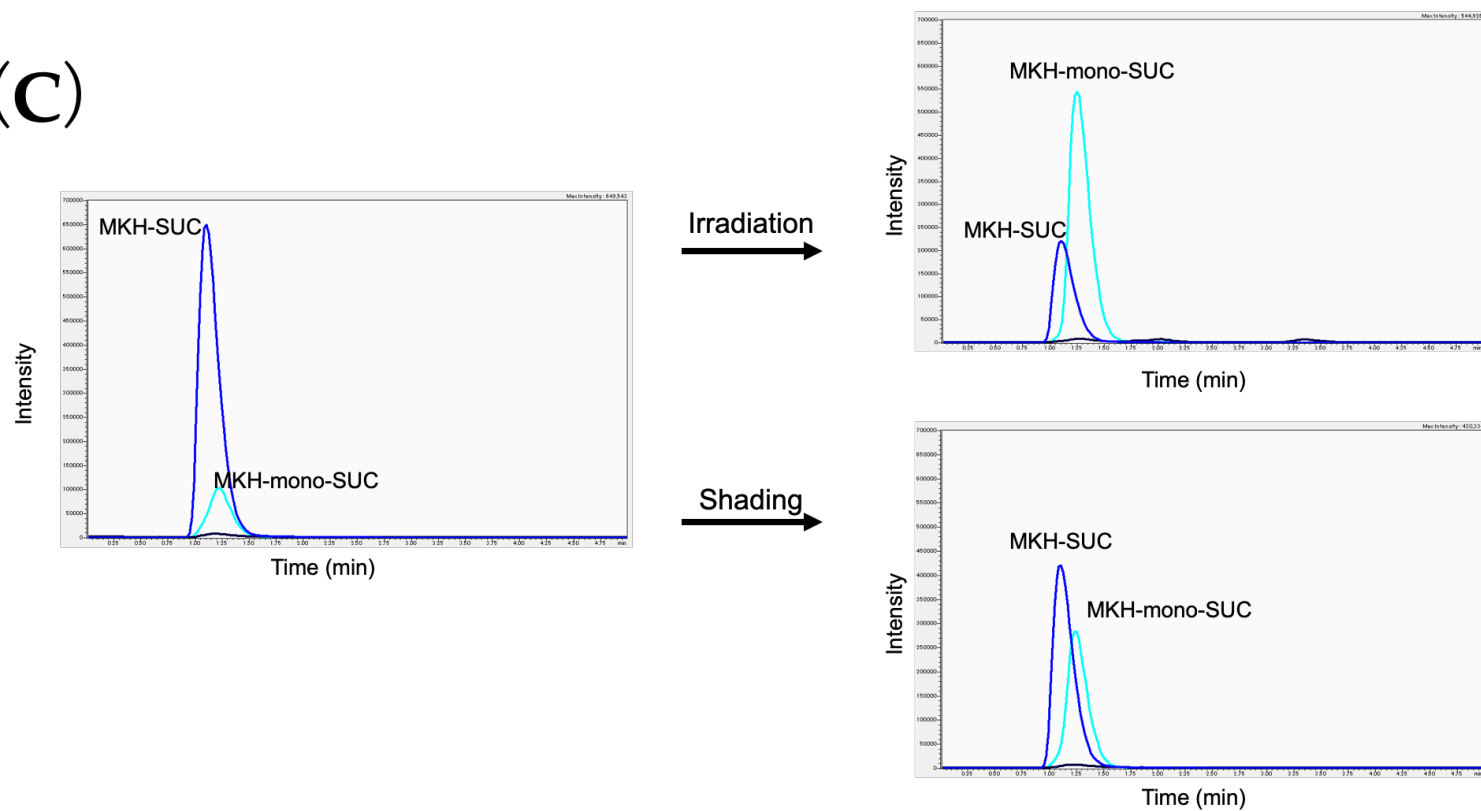


Figure S1. Typical LC-MS/MS MRM chromatograms of MK-4 and MKH derivatives irradiated with artificial sunlight.

(A) MK-4, (B) MKH-DMG and (C) MKH-SUC with and without shading in ethanol (1 μ M). Irradiated with artificial sunlight (12000 lx) for 30 min at 25 $^{\circ}$ C.