



Figure S1. HPLC representative spectra of 2ME.

Highlights

- The PMs were optimized using a Box-Behnken design with the PL, TW80, and ALA as the independent variables and particle size (PS) as the response.
- The optimized PMs were satisfactory in terms of PS (65.36 ± 2.2 nm), PDI (0.273 ± 0.03), surface morphology, and entrapment efficiency ($65.23 \pm 3.5\%$).
- The developed 2ME-PMs have been able to provide better cytotoxicity than 2ME alone.
- The formulation of 2ME-PMs could significantly improve the apoptotic activity compared to 2ME alone.