



**Figure S1.** Changes in ceramides containing short-chain FAs (≤20) following IL-4 and/or PS treatments. HaCaT KC were pretreated with IL-4 (50 ng/mL) for 20 h, followed by incubation with exogenous PS (25 μM) for 4 h. Ceramides with different carbons in length (C16-C20, A-D, respectively) were assessed by LC-MS/MS system.