Supplementary Fig. 1



Supplementary Fig. 1. Assessment of apoptosis induced by curcumin using flow cytometry with Annexin V-fluorescein isothiocyanate (V-FITC)/PI staining. The bar graph illustrates the quantification of apoptosis cells. Data are showed as mean \pm S.D. (n = 3). *P<0.05 and **P<0.01 compared with control group.

Supplementary Fig. 2



Supplementary Fig. 2. AIF released from the mitochondria to the nucleus in HaCat cells after exposure to curcumin (0 μ M, 12 μ M, 18 μ M, 24 μ M). The bar graph illustrates the quantification of AIF proteins before and after treatment with curcumin. *P<0.05 and *P<0.01 compared with control group. Values are expressed as the means ± SEM, n=3 parallel experiments in each group.





Supplementary Fig. 3. Effect of curcumin on apoptosis of HaCaT cells under different conditions. The bar graph illustrates the quantification of apoptosis cells. *P<0.05 and **P<0.01 compared with control group. The concentration of curcumin is 18 μ M. Data are showed as mean ± S.D. (n = 3).

Supplementary Fig. 4



Supplementary Fig. 4. Effect of curcumin on the $\Delta\Psi$ m of HaCaT cells. The bar graph illustrates the quantification of low fluorescence peak. *P<0.05 and *P<0.01 compared with control group. Values are expressed as the means ± SEM, n=3 parallel experiments in each group.





Supplementary Fig. 5. Effect of curcumin on expression of the caspase 3, Bax, and Bcl-2 in HaCaT cells. The bar graph illustrates the quantification of signaling-related proteins. P<0.05 and P<0.01 compared with control group. Values are expressed as the means \pm SEM, n=3 parallel experiments in each group.