

Figure S1. HPLC chromatograms of the *C. takesimana* leaf and callus extract
(a) *C. takesimana* leaf extract. (b) *C. takesimana* callus extract.

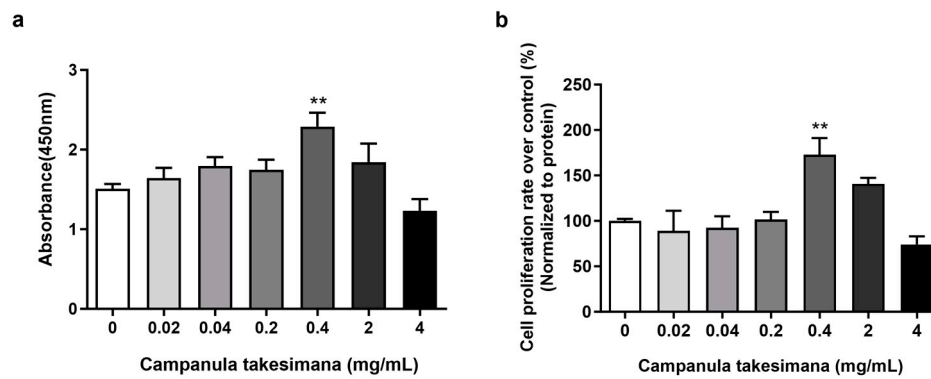


Figure S2. The effect of *C. takesimana* callus extract on cell viability and proliferation
(a) Absorbance of NHEKs treated with callus extract (0-4 mg/mL) was measured using MTT assay. (b) Cell proliferation rate was analyzed using EZ-Cytox Plus assay kit. All data are shown as mean \pm SD and analyzed by one-way ANOVA analysis followed by Tukey's multiple comparisons tests ($n = 4$ per group, ** $p < 0.01$). * $p < 0.05$

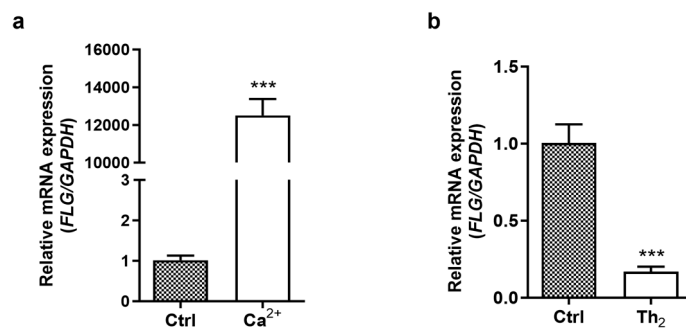


Figure S3. The effect of IL-4/IL-13 cytokines on *FLG* expression in NHEKs
(a, b) The mRNA expression of *FLG* was measured by qRT-PCR. (a) NHEKs were treated with CaCl₂ to induce the differentiation of the cells. (b) NHEKs were treated with CaCl₂ in the presence or absence of IL-4/IL-13 for 24h. All data are shown as mean \pm SD and analyzed by an unpaired t-test ($n = 4$ per group, *** $p < 0.001$).

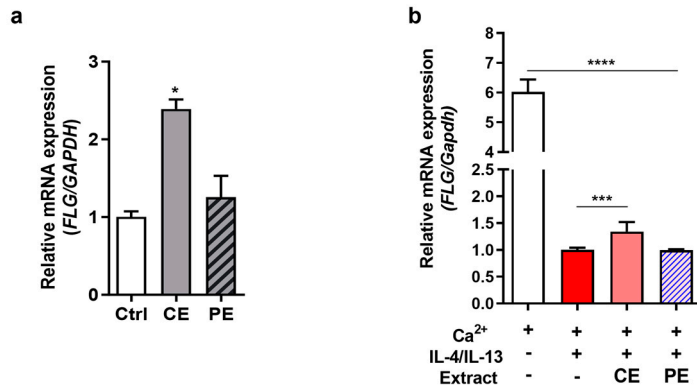


Figure S4. *C. takesimana* callus extract, but not *C. takesimana* plant extract, regulates the expression of *FLG*

(a, b) Callus extract or plant extract was applied to the culture medium for 5 days with or without IL-4/IL-13 in the presence of calcium chloride. The expression of *FLG* was detected by qRT-PCR. All data were analyzed by one-way ANOVA analysis followed by Tukey's multiple comparisons test and shown as the mean \pm SD (n=4 per group, * p < 0.05, ** p < 0.01, *** p < 0.001, and **** p < 0.0001).