As a method for controlling the amount of desmosome protein, a method in which desmosome protein accumulated in the stratum corneum is decomposed by protease to improve acne, dandruff or desquamation has been reported so far (Patent Literature 1).

[0004]As constituent proteins of desmosome, desmoglein 1, 2, 3, 4, desmocollin 1, 2, 3, desmoplakin 1, 2, etc. are known.

Particularly in the desmoglein 1 of adhesive protein among the constituent proteins of desmosome, there is a close correlation between protein decomposition of the desmosome component and cell exfoliation. On this account, to confirm the existence state of desmoglein in the stratum corneum is to evaluate the desmosome function, so that this is extremely important in order to evaluate the skin condition.

Citation List

Patent Literature

[0005] Patent Literature 1

Japanese Translation of PCT International Application Publication No. 1995-505383

Summary

[0005a] In one aspect of the present disclosure, there is provided a method for screening an ingredient that

affects the increase or decrease of adhesive protein in stratum corneum cells, comprising:

a collecting step of collecting stratum corneum cells using a tape stripping method,

a transfer step of transferring stratum corneum onto a glass slide having a positively charged surface,

a cleaning step of cleaning the glass slide,

a preparation step of adding a search target ingredient to the glass slide and staining adhesive protein by an immunohistochemical staining method to prepare a screening sample,

an image acquiring step of photographing an arbitrary place of the screening sample to acquire an image for analysis, and

an evaluation step of evaluating an effect of the search target ingredient on the increase or decrease of the adhesive protein using, as an index, an area of a stained part in the image for analysis.

[0005b] In another aspect of the present disclosure, there is provided a method for preparing a stratum corneum cell sample using a tape stripping method, comprising:

a transfer step of transferring stratum corneum onto a glass slide having a positively charged surface, and

a cleaning step of cleaning the glass slide.

Technical Problem