Claims

1. Use of a combination of the detection reagent of Moraxella osloensis (*M. osloensis*) and Cutibacterium acnes (*C. acnes*), characterized in that the relative value of the level of *Moraxella osloensis* and the level of Cutibacterium acnes is used for the preparation of a reagent or kit for (a) skin classification; and/or (b) determining or characterizing skin conditions.

2. The use of claim 1, wherein the skin conditions include: skin age, skin hydration, skin elasticity, skin color, degree of skin aging.

3. A method for skin classification or determining skin conditions, comprising:

(1) providing a sample derived from the skin of a subject to be tested, detecting the level of each marker in a combination of sample markers, the combination comprising the following markers: the Moraxella osloensis and the Cutibacterium acnes, obtaining a level (M) of Moraxella osloensis and a level (C) (e.g. content) of Cutibacterium acnes, respectively;

(2) classifying the skin of the subject to be tested, and/or determining the skin conditions, based on the level (e.g. content) (M) of Moraxella osloensis, or comparing the level (M) of Moraxella osloensis with the level (C) of Cutibacterium acnes in the sample;

wherein when the relative value (e.g., M/C) of the level of Moraxella osloensis (M) and the level of Cutibacterium acnes (C) in the sample is$\leqslant$0.8, the skin classification is type C (or type I), and the skin condition includes: high oil content, high water content, good skin elasticity, low degree of skin aging, and bright skin color;

when the relative value (e.g., M/C) of the level of Moraxella osloensis (M) and the level of Cutibacterium acnes (C) in the sample is $0.8 \leqslant M/C \leqslant 1.8$, the skin classification is mixed type (or type II), and the skin condition includes: moderate oil content, moderate water content, moderate skin elasticity, moderate degree of skin aging, and moderate skin color;

when the relative value (e.g., M/C) of the level of Moraxella osloensis (M) and the level of Cutibacterium acnes (C) in the sample is $\geqslant 1.8$, the skin classification is type M (type III), and the skin condition includes low skin oil content, low water content, poor skin elasticity, high degree of skin aging, and dark skin color.

4. A system for classifying the skin of a subject to be tested and/or determining the skin conditions of a subject to be tested, comprising:

(a) a feature receiving module for receiving a skin sample feature data, which comprises: a quantitative information on each of Moraxella osloensis (M) and Cutibacterium acnes (C) in the skin sample;

(b) a computational processing module for calculating a feature data from the feature receiving module, thereby obtaining a respective ratio of each feature or the ratio relationship between each feature; and comparing with a standard value for skin classification or feature characterization based on the respective ratio obtained or the ratio relationship between each feature, thereby obtaining a determination result of skin classification and/or skin conditions; and

(c) a result output module for receiving and outputting the determination result.

5. The system of claim 4, wherein the method of obtaining quantitative information comprises: sequencing, PCR, protein quantitative detection.

6. A method for screening a substance or composition for improving skin conditions, comprising:

(a) providing a screening bacteria, which is a screening bacteria (a mixed bacteria) comprising Moraxella osloensis and Cutibacterium acnes;

(b) Co-culturing the substance or composition to be screened with the screening bacteria and detecting the relative level (M/C) between Moraxella osloensis and Cutibacterium acnes;

(c) based on the relative level (M/C) between Moraxella osloensis and Cutibacterium acnes, thereby determining that the substance or composition to be screened is a skin conditions-improving substance or composition; wherein when the relative level (M/C) between Moraxella osloensis and Cutibacterium acnes is

increased, or the relative level (C/M) between Cutibacterium acnes and Moraxella osloensis is decreased, the substance or composition to be screened is a substance for treating acne; and/or the relative level (M/C) between Moraxella osloensis and Cutibacterium acnes decreases, or the relative level (C/M) between Cutibacterium acnes and Moraxella osloensis increases, the substance or composition to be screened is a substance for anti-aging of the skin.