

Co-developed with the China National Engineering Research Center for Functional Food,
Innovation Center on Probiotics Science and Technology of Jiangnan University
—A team led by academician of the Chinese Academy of Engineering

Biobloom™ *Microecobeauty ME-3*

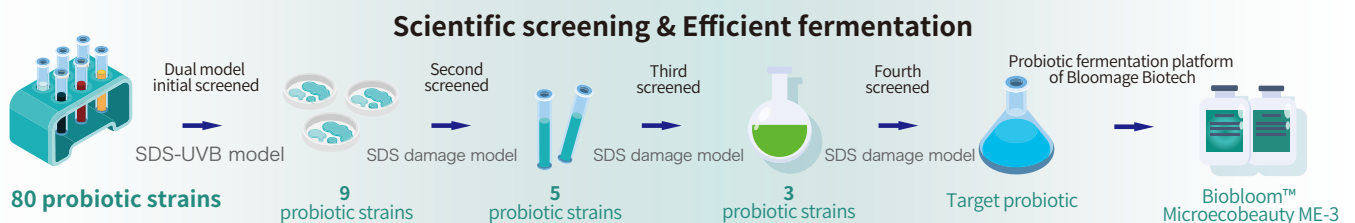
INCI name: BIFIDA FERMENT FILTRATE, COSMOS APPROVED

「Each drop contains 50 million probiotic extracts

Enhance barrier & Endogenous maintenance」

- Promote the expression of cornified envelop related protein and AQP3, enhance skin barrier
- Promote cell migration, repair damaged cells, maintain skin barrier

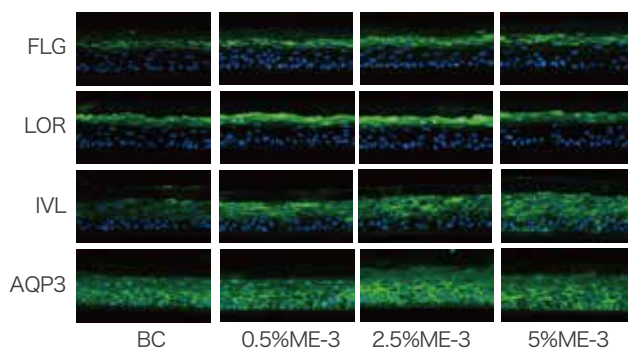
Biobloom™ ME-3 is an exciting 3rd launch from the Microecobeauty line of probiotic strains developed in conjunction with the Innovation Center on Probiotics Science and Technology of Jiangnan University. ME-3 is produced based on Bloomage Biotech's probiotic fermentation platform by *Bifidobacterium* which is screened from 80 strains in the probiotics strain library established by Innovation Center Probiotic Science and Technology with the strongest barrier repair capability.



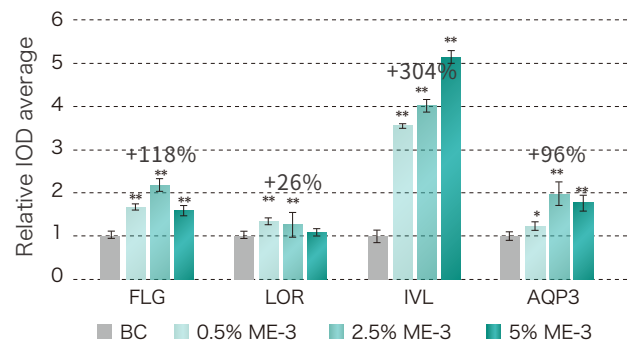
Promote the expression of cornified envelop related protein and AQP3, enhance skin barrier (*in-vitro*)

Cornified envelop is an important part of the brick wall structure of skin barrier, which directly affects the barrier function. Immunohistochemical tests showed that compared with the blank control group, 2.5% ME-3 could increase the content of cornified envelop marker protein -- filaggrin (FLG), Loricrin (LOR) and Involucrin (IVL) by 118%, 26% and 304%, respectively.

Aquaporin 3 (AQP3) can mediate the transmembrane transport of water, glycerin and other small molecules, and plays an important role in skin hydration, skin barrier function recovery and wound healing. Immunohistochemical results showed that compared with the blank control group, 0.5% and 2.5% ME-3 could increase AQP3 protein content by 22%, 96%, respectively.



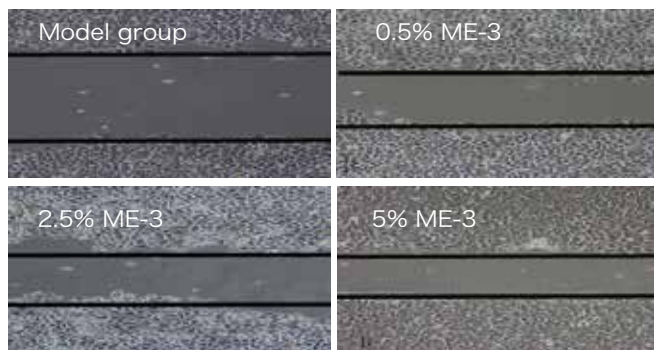
3D skin model, Immunofluorescence staining



*p<0.05 **p<0.01

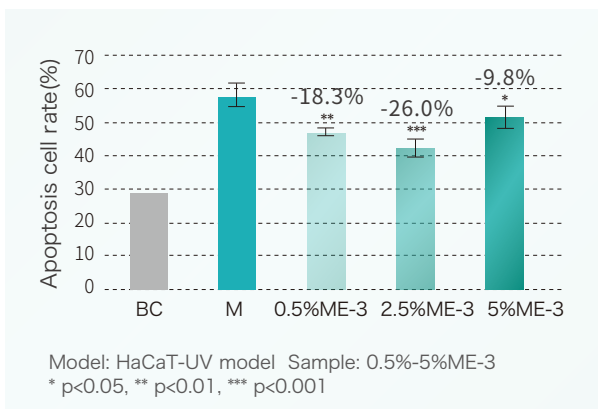
Promote cell migration, repair damaged cells, maintain skin barrier (*in-vitro*)

The cell scratch experiment showed that compared with the model group, the width of scratch decreased after ME-3 treatment, the cell migration rate increased, and the scratch healing rate increased, indicating that the cell repair capacity was enhanced.



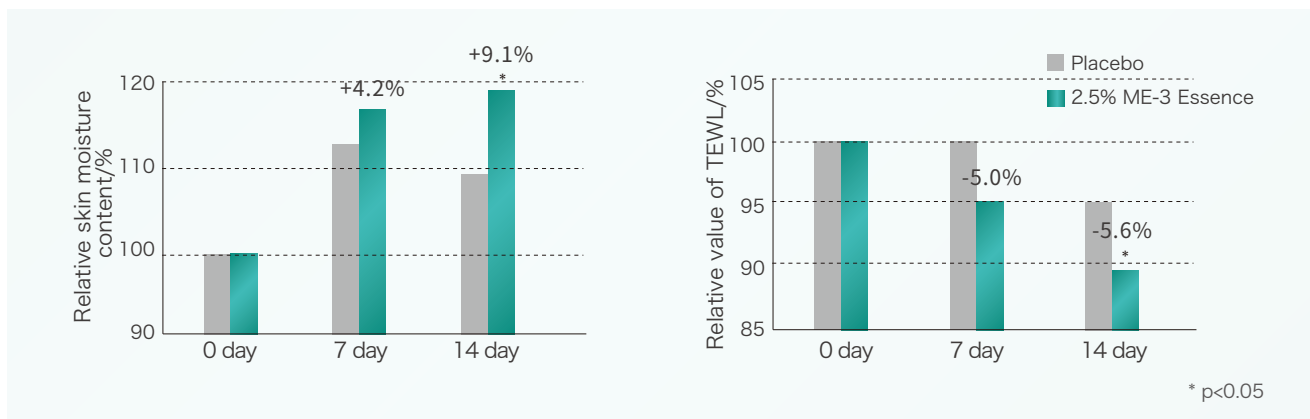
HaCaT cell-Scratch experiment
Cell migration ability was observed after 48h

UV irradiation can induce epidermal cell apoptosis, and ME-3 can repair the epidermal cell apoptosis caused by UV irradiation. The apoptosis inhibition rate of 2.5% ME-3 cells was 26.0%



Endogenous maintenance, anti-sensitive (*in-vivo*)

A self-control study was conducted on 15 selected volunteers with sensitive skin. Subjects continuously used 2.5% ME-3 essence and placebo in the morning and evening. The results showed that compared with the placebo group, after using the 2.5% ME-3 essence for 14 days, the skin moisture content was significantly increased by 9.1%, and the TEWL was reduced by 5.6%. Therefore, ME-3 has the effect of moisturizing and barrier strengthening.



Product introduction

[INCI name] BIFIDA FERMENT FILTRATE, PENTYLENE GLYCOL

[Characters] Light yellow, transparent solution

[Application] Barrier strengthening, moisturizing and other skin care products or cosmetics

[Suggested usage] 0.5%-5.0%



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