

MICROBIOME-FRIENDLY PRODUCTS : balance of *S. epidermidis*



A perfectly balanced microbiome is crucial to maintain a healthy skin. Skin care products preserving this equilibrium are considered as “**microbiome-friendly products**”. *In vitro* evaluation can be performed by assessing the growth and adhesion of *Staphylococcus epidermidis*, the predominant commensal in healthy human skin, on top of 3D reconstructed human epidermis.

Description

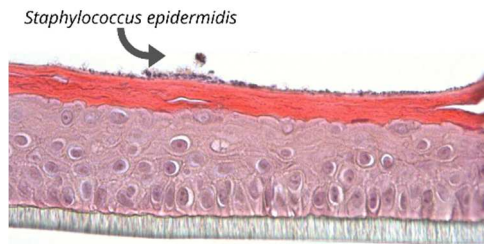
Replicates the colonization of skin by the predominant commensal bacterial strain, *Staphylococcus epidermidis*.

Skin model

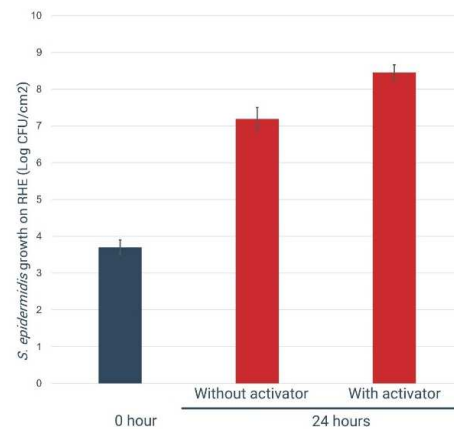
RHE-SE: Reconstructed Human Epidermis (RHE) topically colonized by a reference strain of *Staphylococcus epidermidis* (SE).

Endpoints

1. Morphological analysis of RHE-SE after Hemalun/Eosin staining



2. Adhesion and growth of *S. epidermidis* on RHE by C.F.U. (Colony Forming Unit) counting. Positive control: *S. epidermidis* growth activator.



3. Skin response to *S. epidermidis* colonization by gene expression (RT-qPCR): individual TaqMan probes or 93 genes TaqMan Low Density Array (TLDA - “Skin Response to Microorganisms”)

