



## Solar Lentigines

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### ***In vitro* testing for hyperpigmented age spots**

**Solar lentigines** also referred as “age spots”, are hyperpigmented lesions that are located predominantly on the sun-exposed areas of the skin. Even though highly associated with photo-ageing in elderly people, hyperpigmented lesions can result from other environmental causes.

**StratiCELL** has developed an *in vitro* 3D model of melanized reconstructed epidermis that replicates main features of solar lentigines. The specific culture condition based on a unique cocktail of promelanogenic factors induces hyper-pigmentation and proliferation of the epidermis. Combined to pigmentation assays, this model is ideally suited to objectivate depigmenting effects of dermo-cosmetic raw active ingredients and final skin care products.



## 3D models

**RHE-SL:** Reconstructed Human Epidermis upon stimulation with a cocktail of fibroblast-derived melanogenic factors to replicate Solar Lentigines features.

**RHE-SL-SPOTS :** Reconstructed Human Epidermis with individualized age spots upon stimulation with a cocktail of fibroblast-derived melanogenic factors.



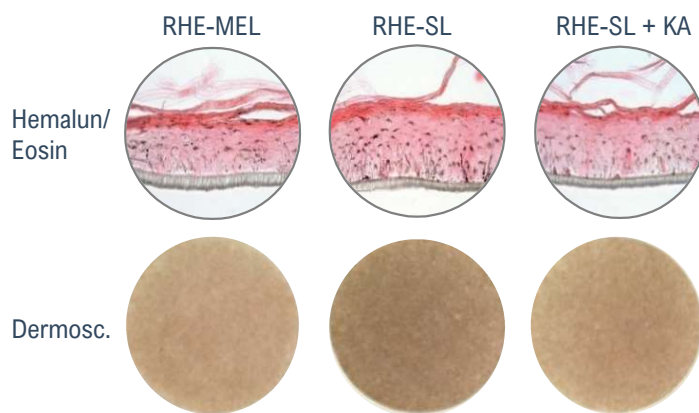
## Positive Reference

- Kojic acid (KA)

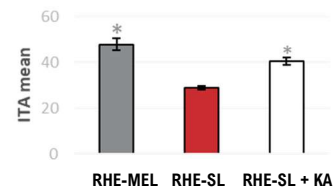


## Testing Methods

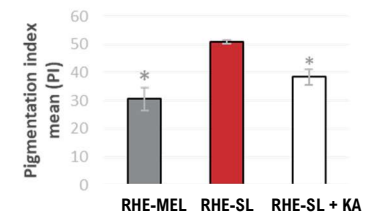
**1. Dermoscopy images :** high-resolution surface pictures and calculation of the Individual Typology Angle (ITA) and the Pigmentation Index (PI).



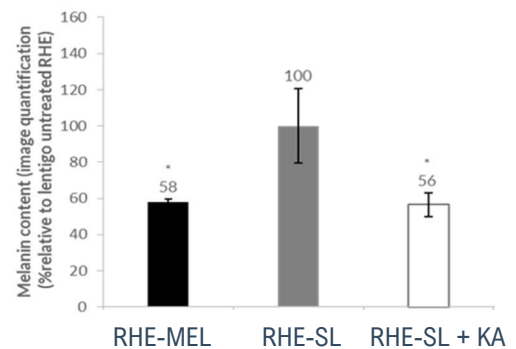
The **individual typology angle (ITA)** characterizing the phototype is inversely proportional to the phototype (\*: p<0,5).



The **pigmentation index (PI)** for which value is directly proportional to the skin pigmentation (\*: p<0,5).



**2. Melanin content** by colorimetry after Solvable® solubilization, or based on Fontana-Masson images.



**3. RHE-SL-SPOTS** showing individual age spots by dermoscopy images.

