

# IN VITRO & EX VIVO TESTING



stratiCell  
Testing & Beyond

## Pigmentation

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### *In vitro* testing for skin whitening or tanning

**Skin pigmentation** is a result of melanin produced by melanocytes in the epidermis. Melanocyte activity, along with the type and distribution of melanin, are the main drivers for diversity of skin color.

**StratiCELL** has developed various 2D and 3D pigmented skin models based on its homemade melanized reconstructed human epidermis, allowing to study the efficacy of dermo-cosmetic active ingredients and skin care products to reduce or enhance skin pigmentation.



## 2D & 3D models

**NHEM** : Normal Human Epidermal Melanocytes

**RHE-MEL** : Reconstructed Human Epidermis with MELanocytes

**UV-induced RHE-MEL**

*Phototypes vary according to testing methods*



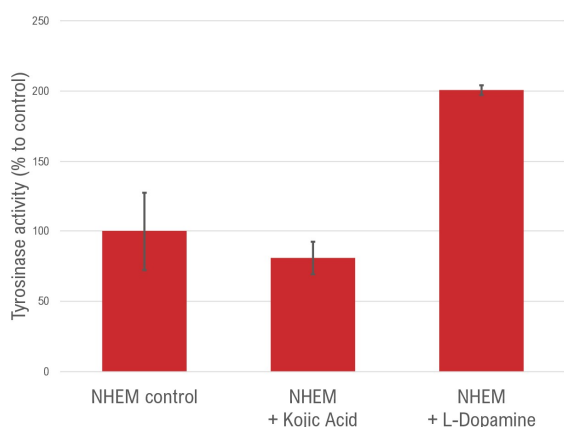
## Positive References

- Kojic acid for *in vitro* studies on skin whitening
- L-Dopamine or IBMX for *in vitro* studies on tanning effect

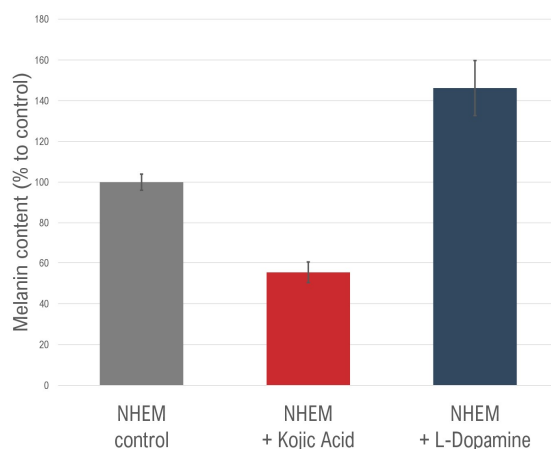


## Testing Methods

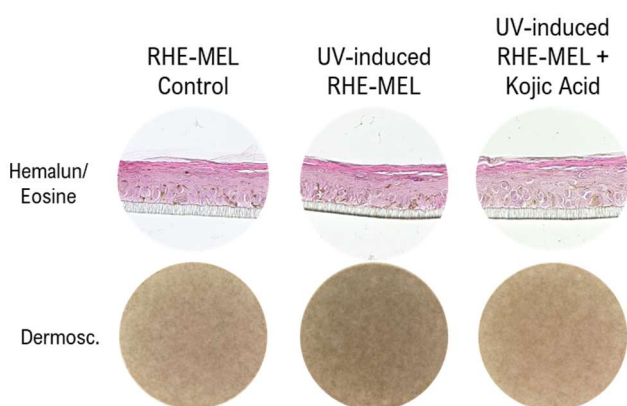
### 1. Tyrosinase activity, *in tubo* or *in vitro*.



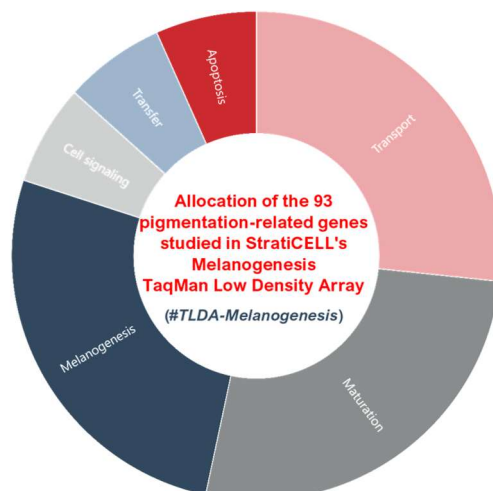
### 2. Quantification of melanin content after total extraction or based on *Fontana-Masson* images.



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



### 4. RT-qPCR gene expression analysis by 93 genes *TaqMan Low-Density Array* (TLDA) technology.



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