Investigating the effect of a test compound on hair follicle pigmentation

Study example: Compound X stimulates pigmentation in gray hair follicles

1. Compound X stimulates melanin production



Pooled data from two independent experiments Mean±SEM, n=4-6 anagen VI hair follicles from two donors.



2. Compound X tendentially promotes the formation of new melanosomes



Pooled data from two independent experiments Mean±SEM, n=5-8 anagen VI hair follicles from two donors



melanosomes, the melanin-producing organelle



Selections of our publications on the topic: Chéret et al., Br J

Dermatol. 2020; Hardmann et al., J Invest Dermatol 2015; Samuelov et al., J Invest Dermatol 2013; Gaspar et al., J Invest Dermatol 2011

Read-outs: Hair Pigmentation, Melanocyte Maturation, Melanin Transfer, Activation Melanogenesis, Growth Factors regulating Pigmentation

3. Compound X tendentially increases the activity of tyrosinase



Vehicle Compound X Pooled data from two independent experiments



In situ assay revealing the enzymatic activity of tyrosinase, the rate-limiting enzyme regulating melanin production





Human microdissected amputated white hair follicles



Human microdissected amputated pigmented hair follicles

Our method: Ex vivo organ culture of human healthy microdissected pigmented or gray/white hair follicle (Langan et al., Exp Dermatol 2015; Kloepper et al., Exp. Dermatol 2010)

Contact us for a customized study:

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Mean±SEM, n=4-5 anagen VI hair follicles from two donors.



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Reasons why you should choose Monasterium Laboratory:

- Cutting edge methodologies and techniques
- Tailor-made & customized assays for all needs
- A focus on novel targets and therapeutics for skin & hair disorders: identify-characterize-validate
- Delivering mechanistic action stories, biomarkers & predictors of response
- Claims support for cosmetic ingredients in skin or hair follicle models
- Clinical trials carried out with strategic partners for healthy skin and hair benefits
- Comprehensive project reports & manuscript drafting and submission

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