

Investigating protective effects of a compound on epidermal or hair follicle stem cells

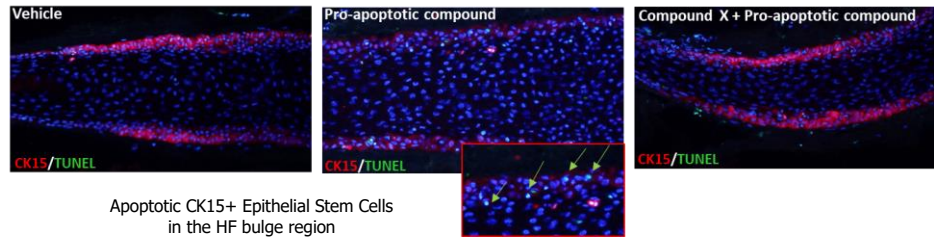
Study example: Compound X protects hair follicle stem cells from experimentally induced cell death

Our method:
Human healthy microdissected full-length hair follicle *ex vivo* organ culture

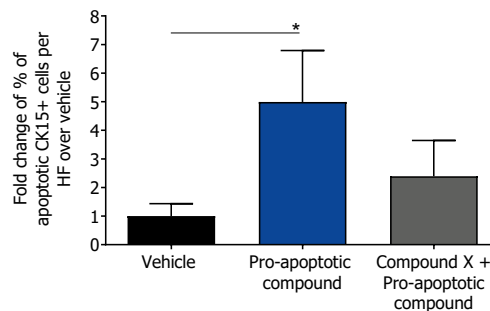
Readout parameters available also for epidermal stem cells

Compound X: Stem cell protective compound

1. Compound X protects stem cells from apoptosis

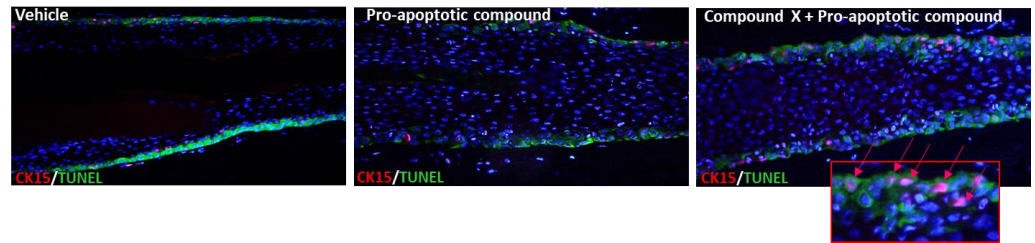
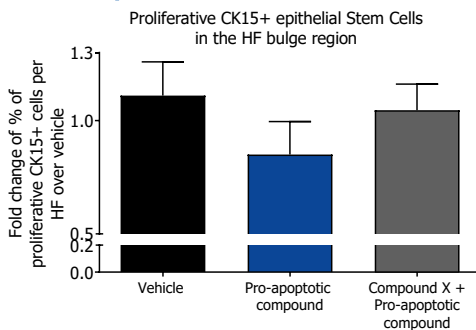


Apoptotic CK15+ Epithelial Stem Cells in the HF bulge region

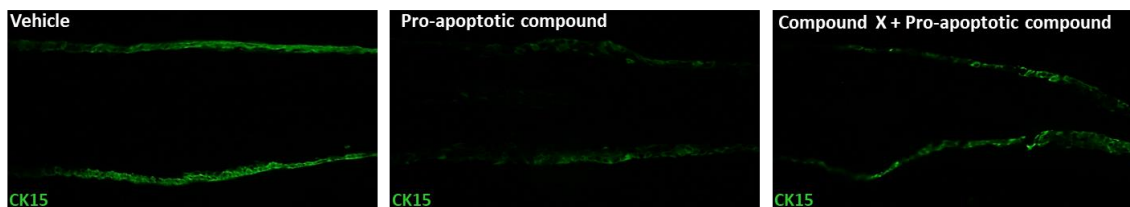


CK15TUNEL immunofluorescence shows the proliferating stem cells in the hair follicle bulge (stem cell niche)

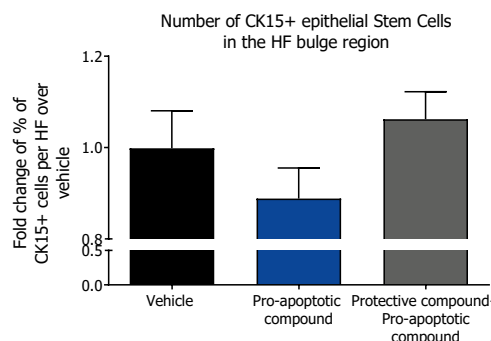
2. Compound X maintains stem cell proliferation under pro-apoptotic treatment



3. Compound X protects the stem cell pool in the hair follicle



CK15 immunofluorescence shows the number of stem cells in the hair follicle bulge (stem cell niche)



Selection of our publications on the topic:
Imanishi et al., J Invest Dermatol 2018; Purba et al., Sci Rep 2017; Ali et al., Cell 2017; Ramot et al., Arch Dermatol Res 2015; Purba et al., Bioessays 2014; Ernst et al., PLoS One 2013

Read outs:

- Number of stem cells
- Stem cell proliferation and apoptosis
- Stemness associated keratins
- Stem cell senescence and aging
- Epithelial-mesenchymal transition
- And more...

Contact us for a customized study:

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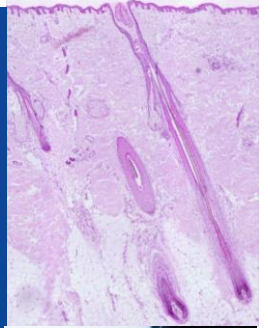


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