

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

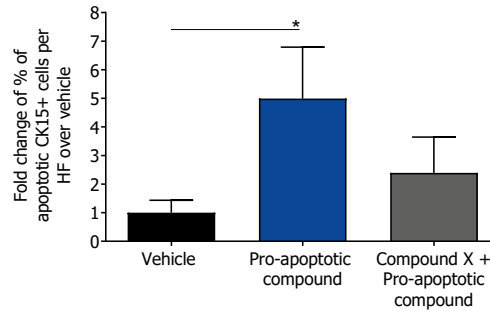
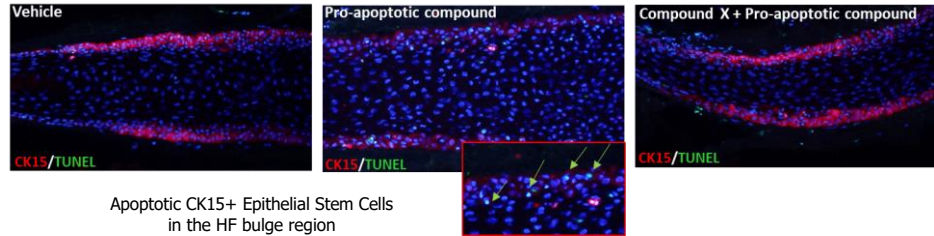
Study example: Compound X protects hair follicle stem cells from experimentally induced cell death

## 1. Compound X protects stem cells from apoptosis

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

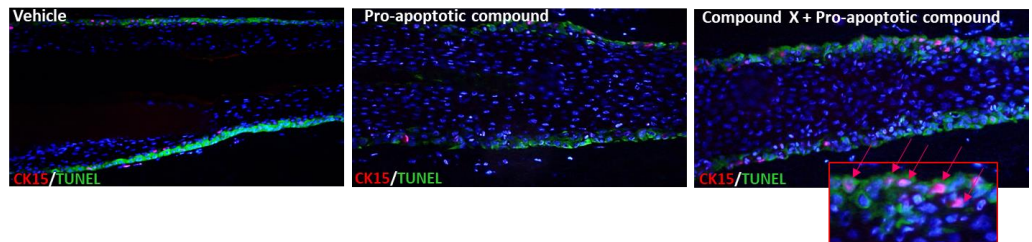
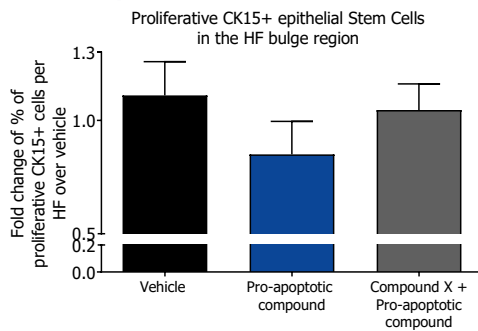
Readout  
parameters  
available also  
for epidermal  
stem cells

Compound X:  
Stem cell protective  
compound

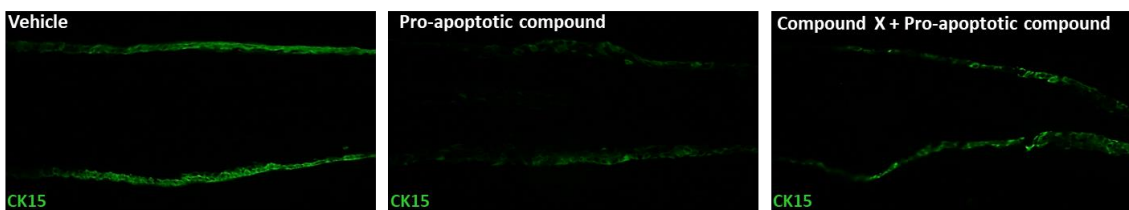


CK15TUNEL immunofluorescence shows the proliferating stem cells in the hair follicle bulge (stem cell niche)

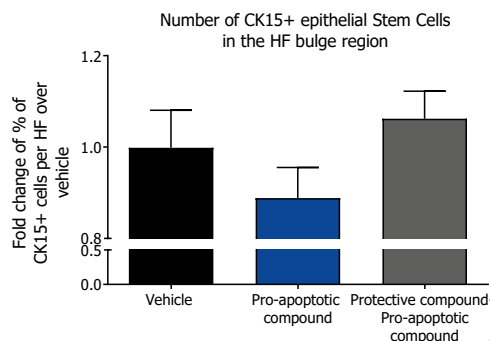
## 2. Compound X maintains stem cell proliferation under pro-apoptotic treatment



## 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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For more details see also our webpage:  
[www.monasteriumlab.com](http://www.monasteriumlab.com)

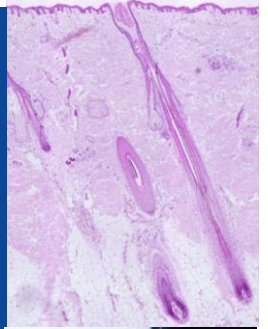


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