DRAGON CELL

Anti-aging | Anti-rosacea | Anti-inflammatory | Anti-oxidant

Effective for skin proliferation, boosts production of collagen and protects skin from UV-induced stress.

INCI: water, glycerine, Dracocephalum ruyschiana callus extract.

About

DragonCell is an extract derived from Nothern dragonhead (Dracocephalum ruyshiana) stem cells. It contains high concentration of phenolic substances. Among them >60% are caffeic acid derivatives, including rosmarinic acid and chlorogenic acid. These are well known antioxidants with beneficial biological activities, including anti-inflammatory, anti-ageing and anti-rosacea.

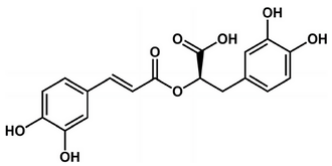
The Plant

Dracocephalum ruyschiana

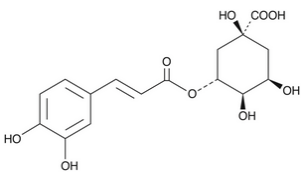
Northern dragonhead is becoming more scarce in the wild because its habitats are threatened due to the growing overexploitation of the land and out competition by other plant species.

- Rare and fragmented populations in Europe;
- Listed on the Reb Book in Baltic Sea region;
- Included in the Strictly protected flora species list of the Convention on the Conservation of European Wildlife and Natural Habitats.

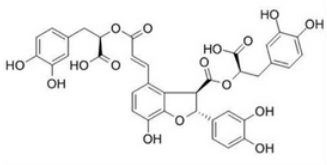
Dracocephalum ruyschiana: Chemical composition



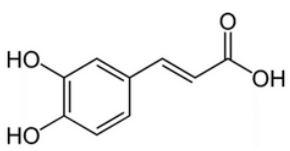
Rosmarinic acid



Salvianolic acid B



Clorogenic acid (in case of light cultivation)



Caffeic acid

More Information:
www.alternativeplants.eu

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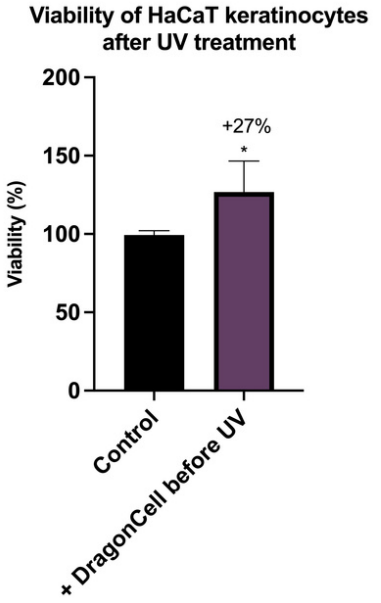
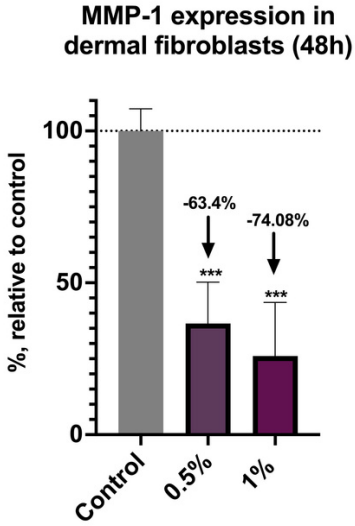
EFFICACY

DragonCell acts towards various mechanisms:

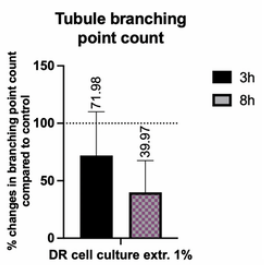
- Boosts proliferation of dermal and epidermal cells reversing skin ageing processes;
- Inhibits activity of collagen degrading enzymes;
- Protects skin from photoaging and environmental stress induced skin damages, maintaining skin cell viability and proliferation rate;
- Angiogenesis regulating activity.

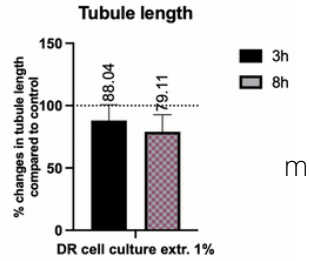


DragonCell **boosts capability of skin keratinocytes to resist UV light induced stress** – after exposure to UVA/UVB viability of keratinocytes preincubated with 1% DragonCell is 27% higher than control.

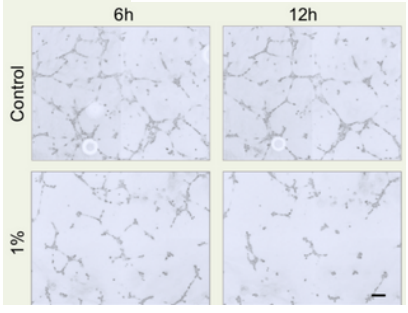


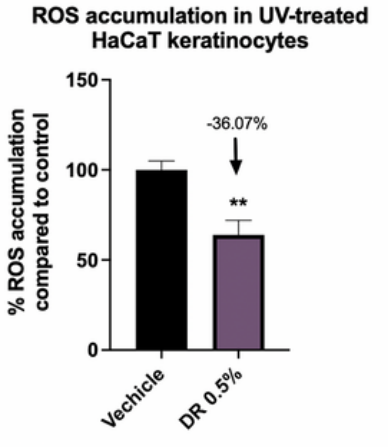
Reduces expression and secretion of collagen degrading enzyme MMP-1 **protecting from photoaging and environmental stress induced collagen breakdown** (in vitro test in dermal fibroblasts)





DragonCell **at concentrations 0.5% and 1% regulates proliferation of endothelial cells**, formation and branching of capillaries. This makes DragonCell a valuable ingredient for anti-cuperose and anti-rosacea applications.
1% extract modulated endothelial cell (HUVEC) tubule length and branching (real-time cell monitoring, automated time-lapse microscopy, n=4).





36% reduction of ROS accumlation HaCaT keratinocytes treated wih UV (flow cytometry, n=3)

Recommended use level: 0.5-2.0%

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