

Anti
inflammatory

Anti-aging

Anti-oxidant

Lightening

INCI: Glycerin (and) water (and) *Juniperus communis* callus extract

About

JuniCell is a *Juniperus communis* plant stem cell extract. Juniper stem cell line was established from young spring shoots that are especially rich in bioactive compounds but in nature are produced only for a limited period of time during season. Stem cells of juniper contain high concentrations of catechins, gallocatechins and procyanidins, that contribute to specific biological activities. JuniCell has strong anti-ageing and skin protecting activity.

The Plant



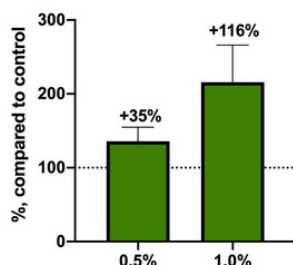
Juniperus communis

One of the Earth's ancient botanical treasures, thrives across the Northern Hemisphere. This plant is experiencing overexploitation, therefore we, by utilizing only its cells, have found its sustainable role in cosmetics. We align with environmental preservation, reducing the plant's burden while delivering the plant's time-tested benefits to skincare formulations.

Efficacy

- Promotes collagen production;
- Protects skin keratinocytes from negative effects caused by ultraviolet light induced damages;
- Alleviates skin inflammation caused by environmental stress;
- Reduces accumulation of senescence markers and reverses cellular ageing;
- Regulates skin pigmentation by reducing melanin synthesis activity.

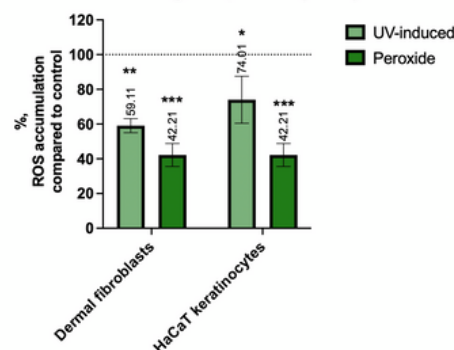
Changes in expression of collagen I



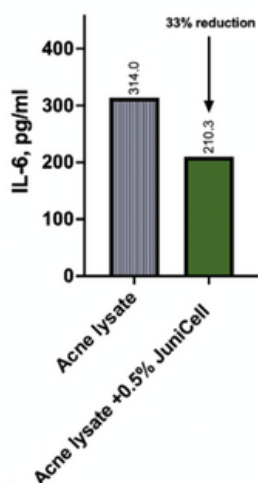
Even at concentrations as low as **0.5%**
**JuniCell promotes collagen
expression** in dermal fibroblasts.

JuniCell protects skin keratinocytes from negative effects caused by ultraviolet light.
0.5% (v/v) extract reduces UV and peroxide induced oxidative stress in skin cells (ROS quantified by flow cytometry)

Reduction of intracellular reactive oxygen species (ROS)



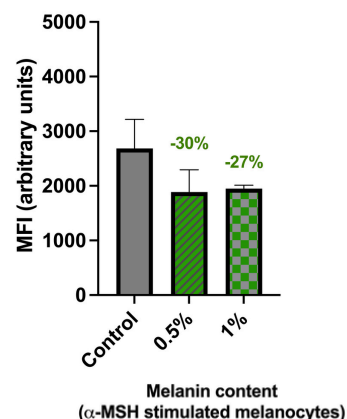
Reduction of IL-6 production (4h)



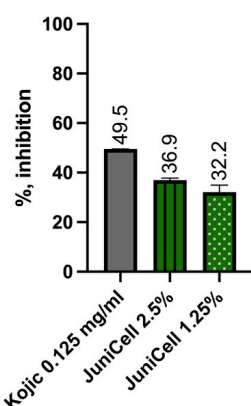
← Anti-inflammatory activity: **33% reduction of IL-6** release from HaCaT keratinocytes stimulated by bacterial lysate.

→ **Reduces accumulation of senescence marker beta-galactosidase** in dermal fibroblasts after UV-induced ageing (senescence marker quantified by flow cytometry).

Reversal of cellular senescence

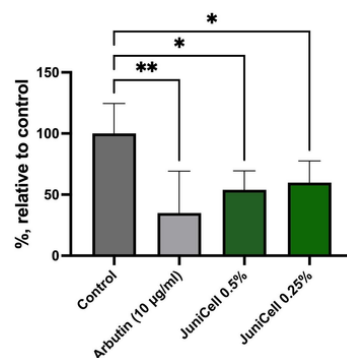


Tyrosinase inhibition



Pigmentation regulating activity

JuniCell acts on melanin synthesis in melanocytes. In melanocytes JuniCell reduced melanin synthesis by more than 40%. Moreover it also has the ability to inhibit tyrosinase, the key enzyme involved in melanin synthesis.



Technical specification – data sheet

Product	JuniCell <i>INCI: Glycerin (and) aqua (and) Juniperus communis callus extract</i>
Appearance	Yellow to light brown/brown. Formation of small amounts of precipitate might be observed and does not affect product quality.
Odour	Characteristic
pH	6.0 ± 1 at room temperature (22... 25 °C)
Solubility	Water soluble
Density	1.10 – 1.20 g/cm ³ at room temperature (22... 25 °C)
Total phenolic content	> 400 µg/ml gallic acid equivalents (Folin-Ciocalteu method)
Microbiological quality (total plate count)	Aerobic mesophilic bacteria < 100 cfu/g (ISO 21149) Yeasts < 100 cfu/g (ISO 16212)
Recommended concentration for use in cosmetic products	0.25 – 0.75%
Shelf life and storage conditions	12 months Store in room temperature, protect from light.



ALTERNATIVE PLANTS