

Anti-oxidant

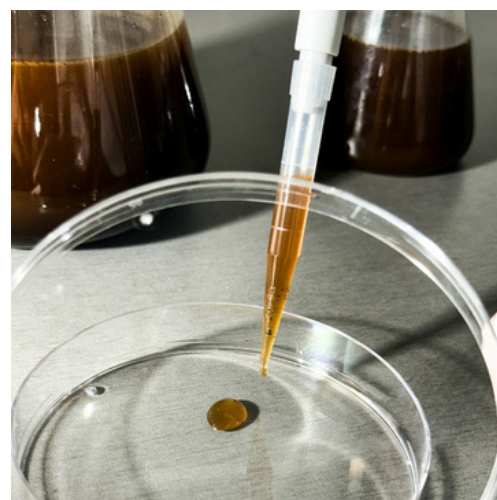
Energizing

Scalp-health

**INCI:** Water, Coffea arabica seed extract, potassium sorbate, sodium benzoate

## ***Transforming Waste into Beauty: The Power of Spent Coffee Grounds***

CaffiCell is an advanced cosmetic ingredient derived from spent coffee grounds through an upcycling and biorefinery process. Every day, over 2.25 billion cups of coffee are consumed worldwide. This massive consumption generates a significant amount of waste in the form of spent coffee grounds, which still contain numerous beneficial plant compounds. To fully harness the potential of coffee beans, we employ tailored extraction techniques to recover skin-energizing and protective compounds from these grounds. This innovation aligns with the principles of the circular economy, transforming waste into a high-value ingredient rich in bioactive compounds.



## ***Efficacy***

- Skin Protection - antioxidative
- Enhanced Microcirculation for Energized Skin
- Scalp Health

**Bioactive chemical compounds:**  
caffeine, chlorogenic acid,  
theophylline, theobromine, tannins,  
sitosterol, triglycerides

**Recommended use level: 2-5%**

From spent coffee grounds...



...to highly efficient extracts...



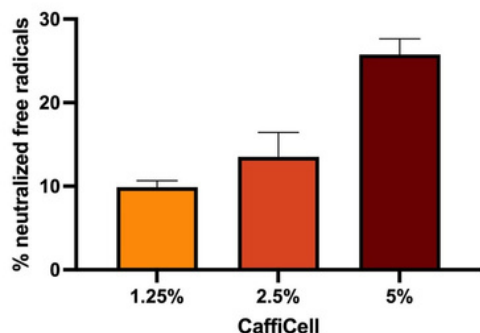
...with characterized bioactivities...



...for outstanding skin and hair-care formulations

## Efficacy

### Antioxidative activity



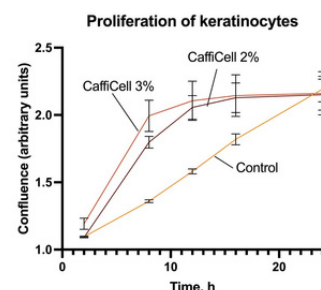
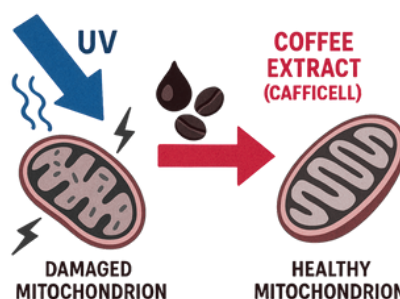
### Stimulating effect



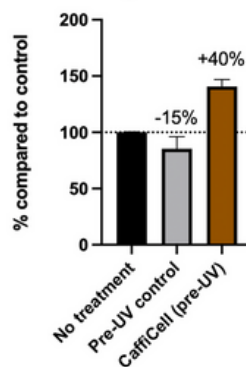
In the presence of CaffiCell, keratinocytes exhibit significantly increased growth activity shortly after its addition, indicating a clear stimulating effect. Moreover even under stress conditions CaffiCell stimulates mitochondrial functions and energy metabolism.

### Antioxidative effect

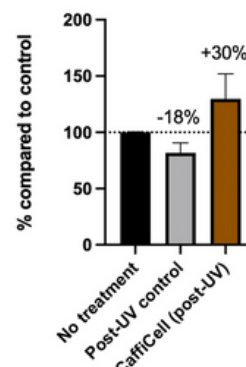
The antioxidants derived from coffee effectively neutralize free radicals, protecting the skin from oxidative stress and contributing to the slowing of skin aging.



### UV pre-treatment

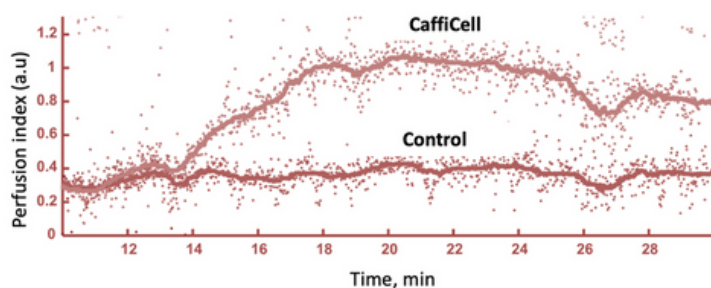


### After UV



### Scalp Health

#### In vivo skin microcirculation (photoplethysmography)



### Promotes skin microcirculation



Caffeine, theophylline, and theobromine stimulates microcirculation to enhance skin vitality and oxygenation while reducing puffiness. Improved circulation also supports scalp health and promotes stronger, healthier hair growth.

## Technical specification – data sheet

<b>Product</b>	<b>CaffiCell</b> INCI: Aqua (and) Coffea arabica seed extract (and) sodium benzoate (and) potassium sorbate
<b>Appearance</b>	Light brown to dark brown, slightly opalescent. Formation of small amounts of precipitate might be observed and does not affect product quality.
<b>Odour</b>	Characteristic
<b>pH</b>	5.5 ± 1 at room temperature (22... 25 °C)
<b>Solubility</b>	Water soluble
<b>Density</b>	0.95 – 1.10 g/cm <sup>3</sup> at room temperature (22... 25 °C)
<b>Total phenolic content</b>	>400 µg/ml gallic acid equivalents (Folin-Ciocalteu method)
<b>Microbiological quality (total plate count)</b>	Aerobic mesophilic bacteria < 100 cfu/g (ISO 21149) Yeasts < 100 cfu/g (ISO 16212)
<b>Recommended concentration for use in cosmetic products</b>	2 – 5 %
<b>Shelf life and storage conditions</b>	12 months Store in room temperature, protect from light.

**CaffiCell** — registered in the China National Medical Products Administration (NMPA) ingredient submission system.

**CaffiCell – 228274-14381-2714**