

# Powerful multifunctional regenerator DRAGON'S BLOOD

50 years  
**COBIO SA**  
NATURALLY EFFECTIVE

**DRAGON'S BLOOD** is an extract obtained from the latex of the Croton lechleri tree, with multiple beneficial properties for skin care treatments.

Its main components are: **Proanthocyanidins, Taspine and Lignans.**

It stands out for its **powerful regeneration capacity** and **anti-free radical activity**. Also having epigenetic activity, it acts at the microRNA level, providing **fibroblast proliferation and migration, anti-inflamm´aging and anti-pollution** effect, improving the **skin barrier** and acting as **natural moisturizer**.



COSMOS APPROVED



## INCI

Propanediol, Aqua (Water), Croton lechleri resin powder

## DOSE OF USE

3-5%

## SOLUBILITY

Hydrosoluble

## EFFICACY TESTS

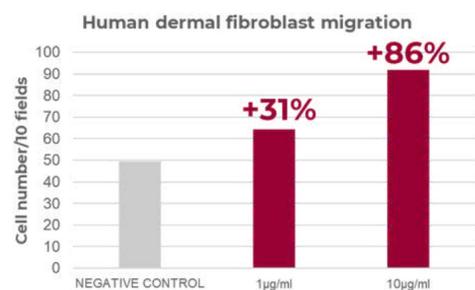
### IN VITRO

1/10 µg/ml Dragon's Blood 48h

SCRATCH TEST  
Human dermal fibroblasts

### SKIN REGENERATION

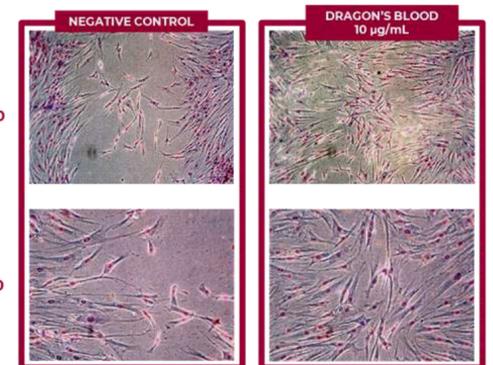
Evaluation of **human dermal fibroblast migration** after creating a "scratch" or artificial gap in a confluent monolayer of cells grown on a culture dish.



Dragon's Blood produces a **significant increase on human dermal fibroblast proliferation and migration** in an attempt to fill the wounded area in just 48h.

X 100

X 200



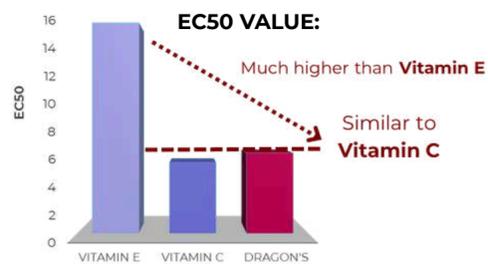
### IN VITRO

Dragon's Blood vs. Vit C & Vit E

SPECTROPHOTOMETRY  
DPPH + Active ingredient

### ANTIOXIDANT ACTIVITY

Evaluation of **anti-oxidant activity** measuring the **reduction of DPPH** by absorbance decrease using a spectrophotometer.



EC50 VALUE:  
CONCENTRATION NEEDED TO QUENCH 50% OF THE TOTAL QUANTITY OF DPPH RADICALS

Dragon's Blood shows an **important anti-oxidant activity**, which is similar to vitamin C and much higher than vitamin E

### IN VITRO

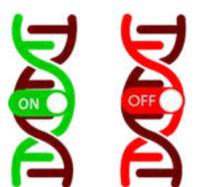
1 µg/ml Dragon's Blood

Expression of key miRNAs  
Human keratinocytes

### EPIGENETIC ACTIVITY

Evaluation of the capacity of Dragon's Blood to **modulate the expression of key miRNAs and genes.**

- **Skin healing and regeneration:** stimulates genes that participate in the structure of the epidermis (FRK) and in the skin's healing process (WNT4 y NRG4).
- **Anti-inflamm´aging:** inhibits the expression of pro-inflammatory substances reducing the relative expression of IL1B, IL6 and PTGS2.
- **Anti-pollution:** stimulates cell detox increasing the expression of GPX2, ALDH3B1 and NRG4.
- **Barrier function:** stimulates the synthesis of TLRs improving the barrier function of the skin.
- **Natural moisturizer:** stimulates the synthesis of the AQP3 gene encoding for Aquaporin3.



## Marketing Claims

POWERFUL SKIN REGENERATOR

HELPS TO IMPROVE HEALING PROCESSES

ANTI-OXIDANT ACTIVITY

EPIGENETIC ACTIVITY

ANTI-INFLAMM´AGING

NATURAL MOISTURIZER & IMPROVES SKIN BARRIER