

CERNILYS®

PATENT

ANTI-DARK CIRCLES EYE ENHANCER



EYE CONTOUR

CERNILYS®

PHYTOBIOACTIVE

> ACTIONS

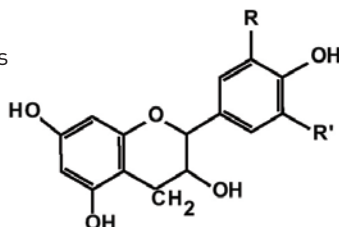
Global action to visibly reduce all types of dark circles

- Prevents oxidative stress
- Improves vascular tone
- Reduces oedema
- Reduces new vessel formation
- Combats inflammation

COMPOSITION

Polysaccharides, mainly galactomannans and sulphated arabinogalactans

Polyphenols (catechin derivatives)



ORIGIN

Cedar bark
Cedrus atlantica
(Bark)



Selected, following a transcriptome study, for its ability to act on vascular system control genes

> MECHANISM OF ACTION

Dark circles are caused by multiple factors: the skin is excessively fine (4 times thinner than elsewhere), hence highly vulnerable to environmental aggressions (UV radiation, pollution) and to an unhealthy lifestyle (smoking, alcohol, fatigue, etc.).

In the event of excessive vascularization and poor micro-circulation, the blood vessels become visible (blue circles); vascular dysfunction can also lead to deposits of haemoglobin contained in red blood cells (red or bluish circles) and to pigment overload (dark circles).

CERNILYS® has a threefold action:

VASOCONSTRICTION: stimulates micro-circulation, increases blood flow and vascular tone. The reddish blue colour under the eyes is reduced and the bags shrink.

INHIBITION OF ANGIOGENESIS: reduces new blood vessel formation.

ANTIOXIDANT AND ANTI-INFLAMMATORY: combats oxidative stress, reduces haemoglobin build-up and soothes inflammatory reactions, thus reducing redness.

> COSMETIC BENEFITS

- The intensity of red or dark blue circle colouring is visibly lessened.
- The eyes look brighter and fresher, the face appears rested.

> COSMETIC USES

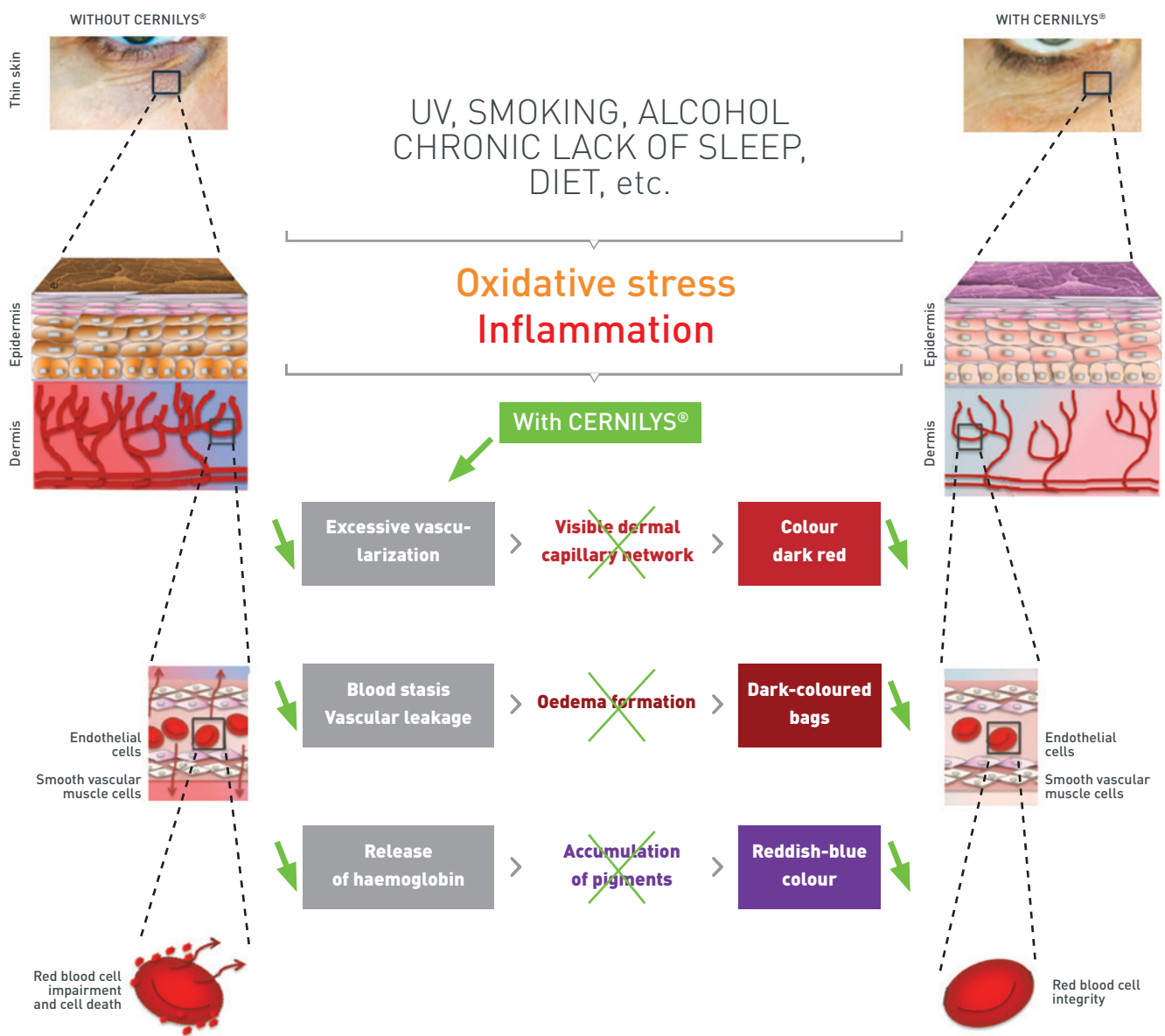
- ▶ Eye contour treatments
- ▶ Anti-dark circle care products
- ▶ Anti-bag care products
- ▶ Dark circle concealing make-up

> **SCIENTIFIC PROCESS**

CERNILYS® increases expression of the ET-1 gene (endothelin 1), a potent vasoconstrictor peptide, in endothelial cells, thus stimulating smooth muscle cell contraction: vascular tone is improved and blood stasis is reduced.

It also increases expression of the TSP-1 gene (thrombospondin 1), an endogenous angiogenesis inhibitor: excessive vascularization is reduced.

By combating oxidative stress and inflammation, it limits vascular leakage, reduces oedema and swelling, prevents blood pigment release and accumulation and reduces bluish-red colouring.



> PROVEN EFFICACY

IN VITRO TESTS

PREDICTIVE TEST

- Pre-selection: selection of active substances with molecules known for their vascular system protective effect.
- Screening by transcriptome analysis: selection of active substances targeting the genes involved in vascular tone and angiogenesis regulation.

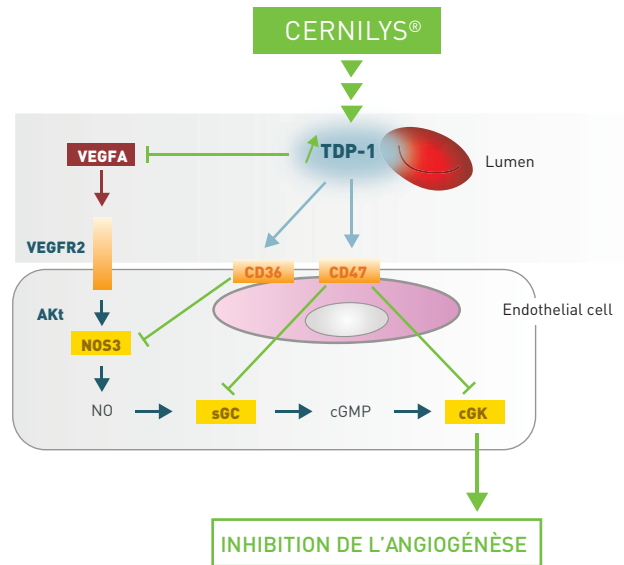
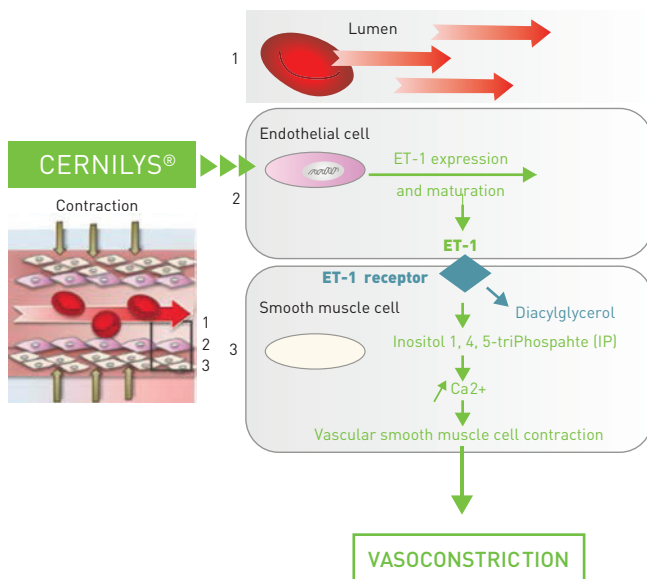
STIMULATION OF VASOCONSTRICTION

- Improved vascular tone and reduced blood stasis

- Reduction of new blood vessel formation and of excessive vascularization

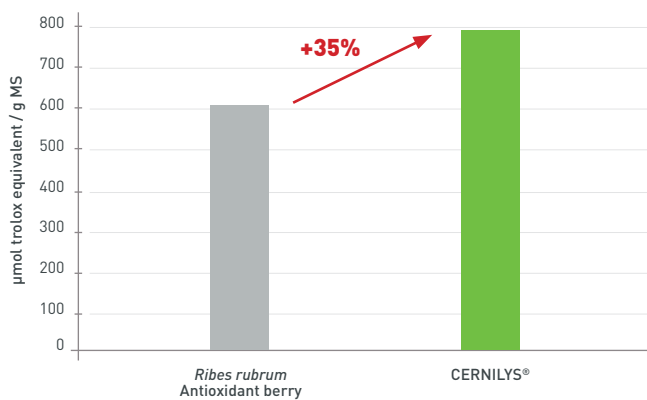
CERNILYS® INCREASES THE EXPRESSION OF THE ET-1 GENE CODING FOR A POTENT VASOCONSTRICTOR PEPTIDE

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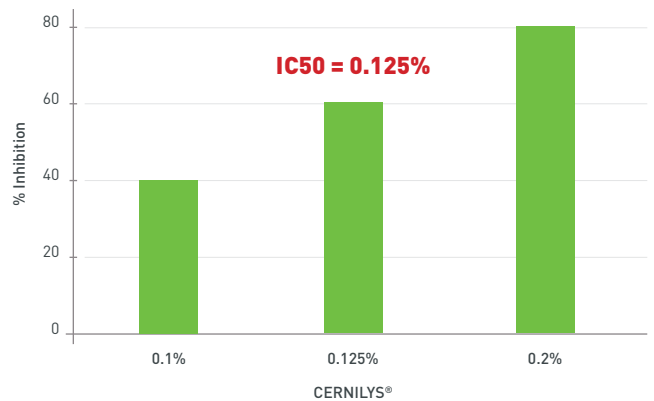
ANTIOXIDANT ACTIVITY

- **+35%** vs antioxidant berry



SOOTHING ACTIVITY

- Inhibition of 5-LOX enzymatic activity (5-LipOxygenase)

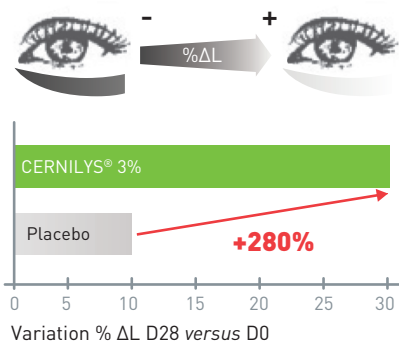


> PROVEN EFFICACY

IN VIVO
TESTS

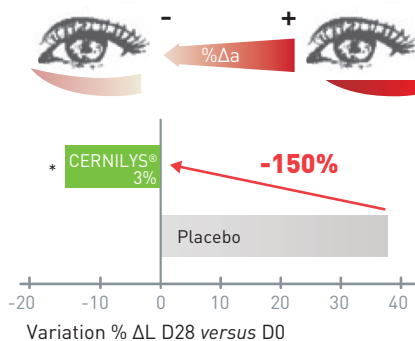
IMPROVED BRIGHTNESS

- **4 TIMES** more than the placebo

* $p < 0.05$ CERNILYS® vs placebo at D28

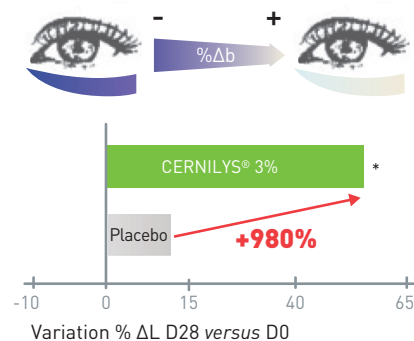
REDUCED REDNESS

- **3 TIMES** more than the placebo



REDUCED BLUISH TINGE

- **10 TIMES** more than the placebo



AVERAGE VISIBLE DARK CIRCLE REDUCTION

- **-35%**

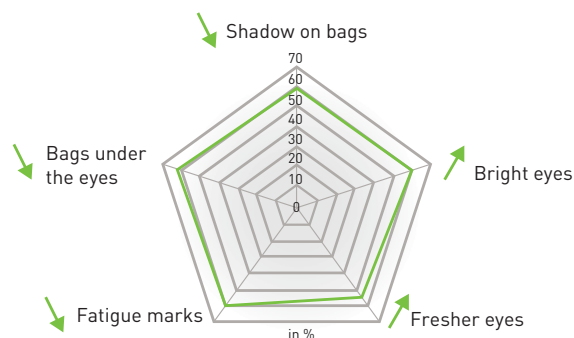


Adjustment of black and white thresholds to generate a grey-scale image for measurement of overall dark circle reduction.



SELF-EVALUATION

- For more than **60%** of volunteers, fresher and brighter eyes



FORMULATION

Concentration for use: 3%

Caution for use:

Add to emulsions, at the end of the preparation process, either cold or at 35-40 °C, during cooling.

TECHNICAL DATA

Characteristics

Organoleptic	Appearance: opalescent liquid Colour: pale amber, orange to brown
Solubility	Water: soluble (10%)

Storage

Keep in a dark place, in the original packaging, at an ambient temperature of between 15 and 25 °C.

Tolerance tests

- Eye irritation: mildly irritating
- Skin irritation: non-irritant
- Sensitization: very good skin compatibility
- Phototoxicity: non-phototoxic

INCI name: Aqua/Water, Glycerin, Cedrus atlantica Bark Extract

Preservative: None

Authorized:

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