

COSTALANE

Cell homeostasis enhancer



- Cell communication stimulation
- Microalgae extract

Costalane is a microalgae-derived active ingredient obtained from *Skeletonema costatum* with a unique polyunsaturated fatty acid composition. To restore cell homeostasis, Costalane reinforces cell-to-cell communication through GAP Junctions (GJ).

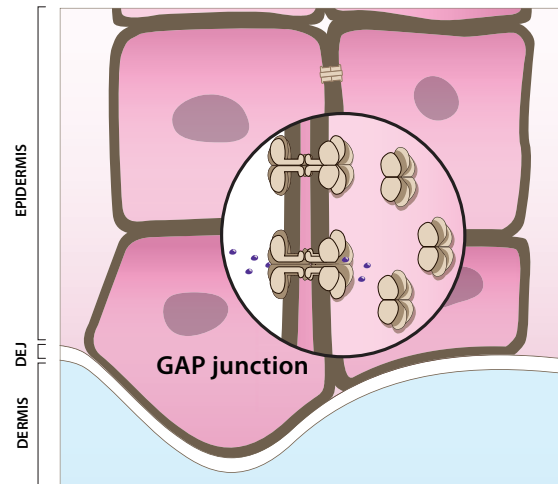
Restoration of skin homeostasis

Aging is described as a progressive loss in homeostasis, directly related to the communication quality between cells.

GAP junctions are transmembrane proteins, mainly composed of connexin 43, connecting neighboring cells.

These specific junctions enable cell communication, thus maintaining homeostasis. GAP junction level decreases with age, leading to cellular dysfunction and senescence.

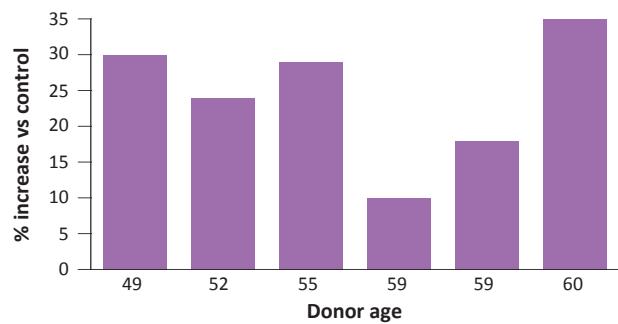
Costalane maintains skin homeostasis by increasing GAP junction level in aging epidermis.



Increase of connexin 43 level (*In vitro* test)

Keratinocyte cultures of old donors were treated with Skeletonema extract (2.5 µg/ml) and incubated with a specific antibody anti-connexin 43.

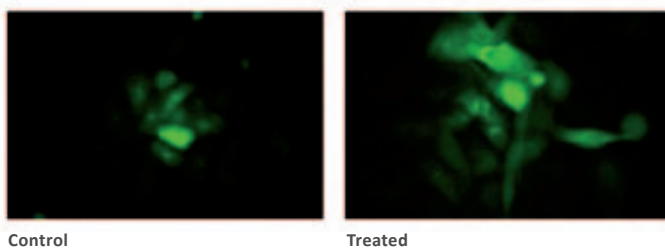
Costalane increases the level of connexin 43.



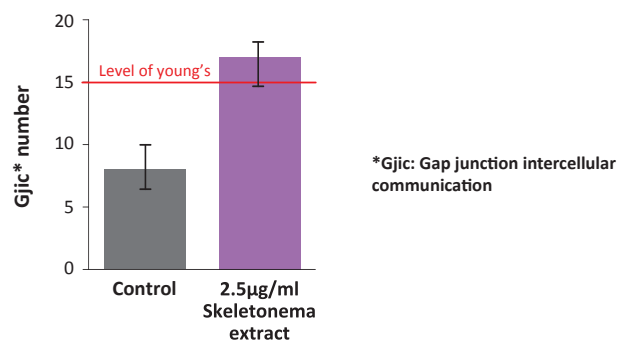
Increase of Gap junction number (*In vitro* test)

Normal human keratinocytes at confluence of old donors (from 49 to 79 years old) were incubated with a fluorescent dye that only diffuses through GJ after treatment with Skeletonema extract (2.5 µg/ml).

Microscope observation



Evaluation of Gap Junction quantity



By increasing Gap junction number, Costalane stimulates cell communication to maintain skin homeostasis. It boosts the efficacy of cosmetic ingredients acting directly in the cell or via intra-cellular messenger.

INCI name: Caprylic/capric triglyceride (and) Skeletonema costatum extract.

Preservative: None.

Dosage: 0.1% to 0.3%.

Cosmetic applications : Skin care products, age defying and mature skin products, photo-protection products, liquid make-up.