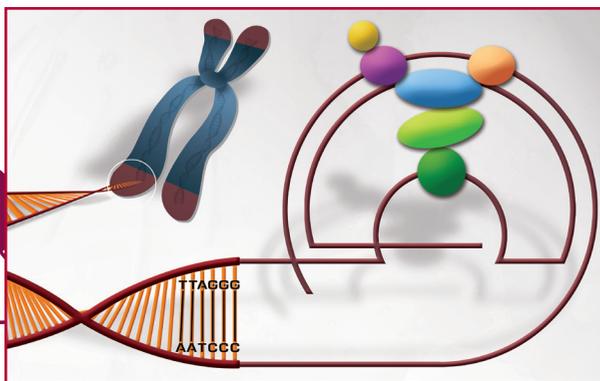


TTAGGG

## TELOSOMYL®

### PROTECTING TELOMERES TO ENSURE LONGEVITY



As the years go, the functioning of cutaneous cells deteriorate and the signs of aging develop. Many studies rewarded by the 2009 Nobel Prize for Medicine have confirmed the central role of telomeres in the aging process.

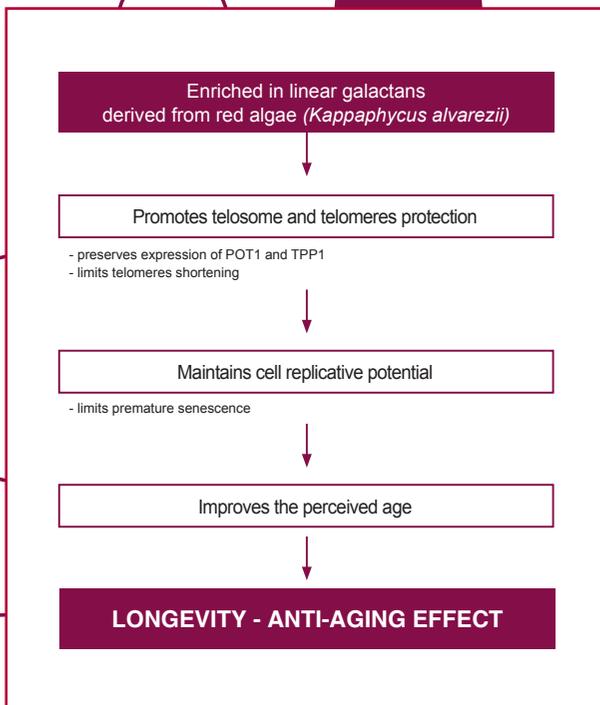
Always at the cutting edge of innovation, the SILAB teams present TELOSOMYL®, rich in red algae (*Kappaphycus alvarezii*) galactans that limit the deterioration of telosomes which serve as a genuine protective cap for telomeres.

Through its action, TELOSOMYL®:

- > **Contributes to the protection of telosomes and telomeres by preserving telosomic protein expression,**
- > **Therefore, limits telomeres shortening.**

TELOSOMYL® thereby contributes to improving longevity and slows down programmed skin aging.

**Smoothed and radiant,  
skin looks younger.  
TELOSOMYL® can be added  
to all anti-aging facial care.**



### The effect of TELOSOMYL® on telomeres length

Flow cytometric study conducted on pre-senescent human fibroblasts.

The shortening of telomeres is significantly accelerated in senescent human fibroblasts. Tested at 0.50% on pre-senescent human fibroblasts, TELOSOMYL® significantly reduces stress-induced telomeres shortening by 65%.

### The effect of TELOSOMYL® on telomeres protection

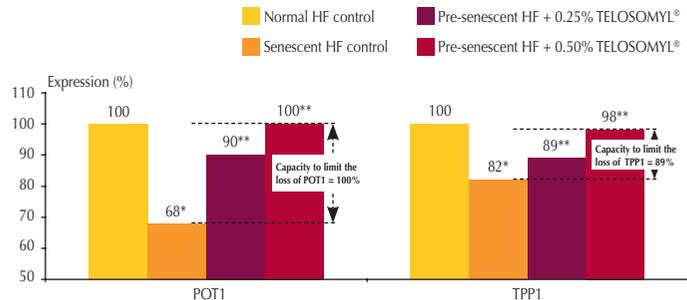
#### ● Study of the expression of telosome molecules

##### POT1 and TPP1

Quantitative PCR study conducted on pre-senescent human fibroblasts (HF).

Expression of POT1 and TPP1, essential proteins for telosomes, is significantly reduced in senescent human fibroblasts in comparison to normal human fibroblasts.

Tested at 0.50% on pre-senescent human fibroblasts, TELOSOMYL® significantly limits the decrease in the POT1 expression by 100% and in TPP1 expression by 89%.



\*: Significant results according to Student's t test/normal fibroblast control ( $P < 0.05$ )  
 \*\*: Significant results according to Student's t test/senescent fibroblast control ( $P < 0.05$ )

### The effect of TELOSOMYL® on the maintenance of cell replication potential

Study conducted by  $\beta$ -galactosidase staining of pre-senescent human fibroblasts.

$\beta$ -galactosidase activity is significantly increased in senescent human fibroblasts. Tested at 0.50% on pre-senescent human fibroblasts, TELOSOMYL® significantly limits the premature passage of human fibroblasts to the senescence phase by 62% and thereby preserves their potential to replicate.

All the studies were conducted using TELOSOMYL® formulated at 3%.

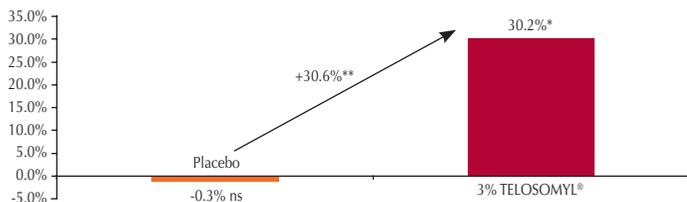
## In vivo studies

### The effect of TELOSOMYL® on the dermal matrix

A confocal microscopy study on two groups of healthy female volunteers divided in the following manner: Placebo group: 21 volunteers with an average age of 59±5 years / TELOSOMYL® group: 24 volunteers with an average age of 59±5 years.

After 42 days of twice-daily applications, the evaluation by a jury of experts using a grading scale showed a significant improvement of 30.6% ( $P=0.0005$ ) in the appearance of the dermal matrix. This effect was observed in 75% of the volunteers.

TELOSOMYL® therefore enabled 58% of the volunteers to change stages and 46% of the volunteers to change from an old skin morphotype (stage 1 or 2) to a morphotype that is close to that of young skin (stage 3 to 4).



\*: significant difference compared to D0 according to the Wilcoxon signed rank test ( $P < 0.05$ )  
 \*\*: significant difference compared to the placebo group according to the Wilcoxon-Mann-Whitney test ( $P < 0.05$ )  
 ns: non-significant difference compared to D0

### Study of the anti-wrinkle properties of TELOSOMYL®

A fringe projection study on two groups of healthy female volunteers divided in the following manner: Placebo group: 21 volunteers with an average age of 59±5 years / TELOSOMYL® group: 24 volunteers with an average age of 59±5 years.

After 42 days of twice-daily applications, TELOSOMYL® smoothes the skin's surface around the crow's feet area. It significantly decreases the Sa parameter by -8.9% ( $P=0.0010$ ) and the Sq parameter by -11.0% ( $P=0.0001$ ). TELOSOMYL® reduces wrinkles by decreasing significantly the negative volume parameter (-27.9%,  $P=0.0076$ ). The distribution of the results showed an improvement in the 3D parameters representative of roughness in 79% of the volunteers who used TELOSOMYL® as well as in 67% of the volunteers for negative volume.

### The effect of TELOSOMYL® on the perceived age of the volunteers

Visual assessment of photographs by a panel of 25 naive evaluators. A study on two groups of healthy female volunteers divided in the following manner: Placebo group: 21 volunteers with an average age of 59±5 years / TELOSOMYL® group: 24 volunteers with an average age of 59±5 years.

After 42 days of twice-daily applications and in comparison with the placebo, TELOSOMYL® causes significant improvement in the age perceived of the volunteers by a panel of naive evaluators. In fact, on an average, the group of volunteers treated with TELOSOMYL® was perceived as being younger by 3 years in comparison with the age attributed to these same volunteers before treatment ( $P<0.0001$ ). This effect was observed in 88% of the subjects who tested TELOSOMYL®. In addition, for half of them, a decrease in perceived age of more than 4 years was noted.

# TECHNICAL SHEET

#### ► Patented

► **Latin name:** *Kappaphycus alvarezii*  
 (syn. *Eucheuma cottonii*)

► **I.N.C.I. name:** *Kappaphycus alvarezii* Extract

► **Cas N°:** 1220882-73-4

► **Proven safety**

#### ► Form:

- Aqueous solution
- Aspect: limpid liquid
- Odor: very weak
- Color: light yellow

#### ► Use:

- Recommended amount: 1 to 3%

#### ► Analytical features:

- Dry matter: 47 - 65 g/l
- Total sugar (Dubois method): 31 - 46 g/l
- pH: 3.0 - 4.0
- Stabilizer: Ethylhexylglycerin 0.20%
- Preservative: Phenoxyethanol 0.50%
- **Studies on cosmetic compatibilities available**