



ACTIVE  
INGREDIENTS

## ADIPOFILL'IN™

BIO-CONTROLLED  
LIPOFILLING

L-ornithine Ionosome™

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Lipohormesis concept

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Decreases the appearance of  
nasogenian fold for a plumper  
and youthful look

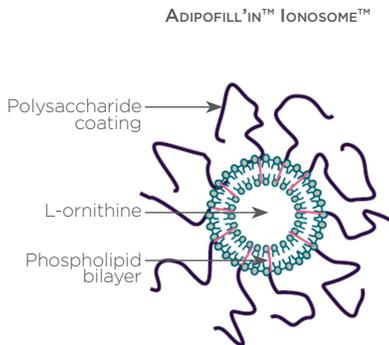


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ADIPOFILL'IN™, A PATENTED L-ORNITHINE ENCAPSULATED IN AN IONOSOME™ DELIVERY SYSTEM, REVERSES AGE-RELATED LIPOATROPHY TO REDUCE THE APPEARANCE OF STRUCTURAL AGING AND PLUMP UP THE SKIN.

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## FOCUS ON STRUCTURAL AGING



Global face aging involves 3 types of aging processes:

- Cellular aging with a progressive dysfunction of cell metabolism.
- Cutaneous aging characterized by a loss of elasticity, appearance of wrinkles, dark spots, rosacea, etc.
- Structural aging due to lipoatrophy (loss of adipose tissue).

Subcutaneous adipose tissue is responsible for the plump aspect of the face. With age, this fat pad progressively melts due to a disturbance of adipocyte metabolism, resulting in the appearance of deep nasolabial folds, saggy jowls and hollowness under the eyes.

Plastic surgery is a well-known method of reduction for structural aging involving the use of lipofilling technology, whereby fat is autografted to restore the initial facial volume.

**Adipofill'in™, a L-ornithine amino acid encapsulated in an Ionosome™, has been designed to mimic lipofilling results.** Obtained by biotechnology from vegetable starch, L-ornithine can better target adipocytes driven by our proprietary delivery system for maximal and faster results.

## ACTIVATION OF HIF-1 $\alpha$ AND THE LIPOHORMESIS CONCEPT

Lipohormesis is a beneficial response of adipose tissue to microstress exposure.

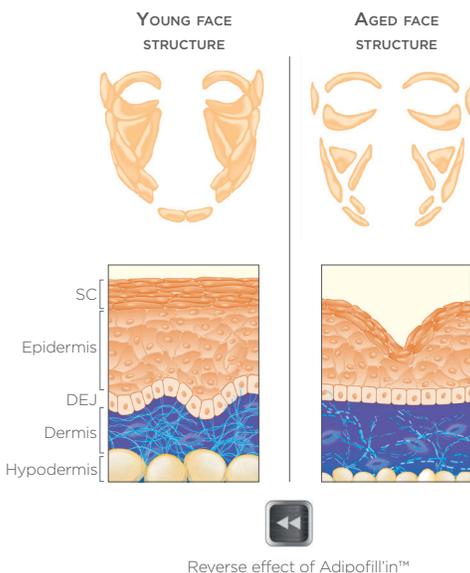
It has been recently described that various stresses in the adipose tissue are able to stimulate its expansion through the activation of Hypoxia Inducible Factor (HIF-1 $\alpha$ ), a transcription factor<sup>1,2</sup>.

An *in vitro* adipocyte genic expression study shows that Adipofill'in™ activates HIF-1 $\alpha$ . Adipofill'in™ therefore reproduces the conditions of a lipohormesis phenomenon, leading to an adipose tissue growth.

Adipofill'in™ has a global action on:

- The activation of adipogenesis (transformation of pre-adipocytes into adipocytes).
- The activation of lipogenesis (fatty acids synthesis).
- The inhibition of lipolysis (breakdown of lipids into free fatty acids).

**Adipofill'in™ is able to increase fatty tissue volume for a lipofilling-like effect through a non-invasive method.**



### References

- 1- Kalinina N.I. *et al.* Hypoxia as the main activator of angiogenesis and fatty tissue growth. *Ross Fiziol Zh Im.* 2009; 95(3):283-9.
- 2- Chun Y.S. *et al.* Oxygen-dependent and -independent regulation of HIF-1 alpha. *J Korean Med Sci.* 2002; 17:581-8.

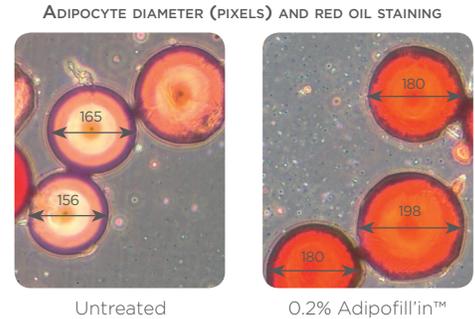
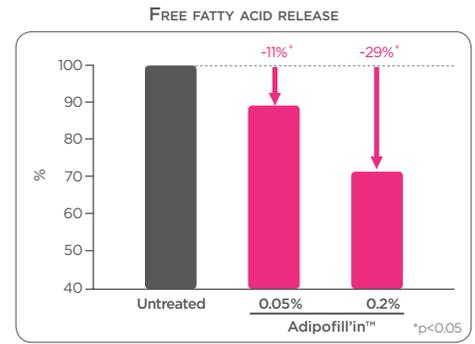
# ENHANCING LIPID STORAGE

## Test protocol

- Human adipocyte culture.
- Free fatty acids release quantification.
- Red oil staining and measurement of average diameter of adipocytes.

By activating HIF-1 $\alpha$ , Adipofill'in™ inhibits lipolysis and the release of free fatty acids from adipocytes with a dose-dependent effect. This triglyceride storage increase (correlated with the red intensity) inflates adipocytes, leading to a bigger cell volume and diameter.

**Adipofill'in™ induces adipocyte fat refilling.**



# REDUCING NASOGENIAN FOLD

## Test protocol

- 20 volunteers (women 40 to 60 years old) with nasogenian folds.
- A cream containing 2% Adipofill'in™ or placebo was applied on split-face 2x/day for 2 months.
- Measurement of depth and roughness by profilometry.
- Evaluation of skin smoothness by a dermatologist.
- Self-assessment by the volunteers.



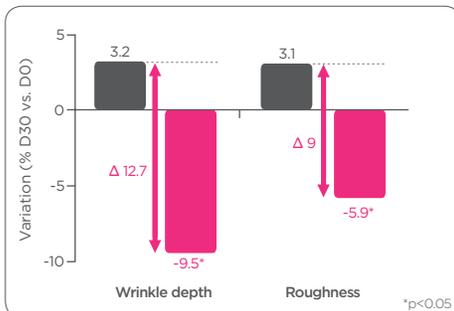
D0



D60

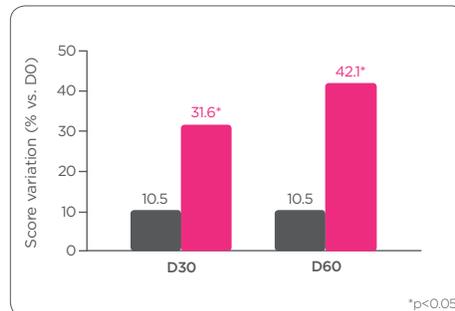
Reduction up to :  
27.5% of roughness  
37.6% of wrinkle depth

## PROFILOMETRY D30



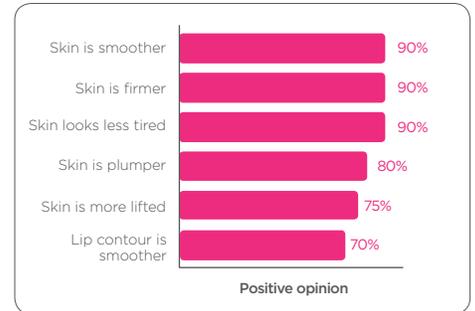
● Placebo ● Adipofill'in™

## SKIN SMOOTHNESS



● Placebo ● Adipofill'in™

## SELF-ASSESSMENT



**Adipofill'in™ strongly reduces the appearance of nasogenian folds after only 1 month. Volunteers agree that it provides smoother, firmer, plumper and more lifted skin.**

**THROUGH THE INNOVATIVE PATHWAY OF LIPOHORMESIS, ADIPOFILL'IN™ INDUCES A FACE LIPOSTRUCTURE FOR A FACIAL REJUVENATION.**

## PRODUCT DESCRIPTION

### INCI NAME

Water (and) Propanediol (and) Ornithine (and) Phospholipids (and) Glycolipids

### APPEARANCE

Off-white to light yellow aqueous solution

### FORMULATION

Add into the formula below 40°C

### OPTIMUM pH

4.5-6.0

### DOSAGE

0.5-2%

### APPLICATIONS

- Anti-aging care
- Anti-wrinkle skin care
- Breast and buttock volume enhancer
- Anti-aging treatment for hands
- Eye care
- Correcting care
- Men's care

CHINA COMPLIANT 

## FEATURES AND BENEFITS

FEATURES	BENEFITS
Patented L-ornithine in an Ionosome™	Precise, targeted and controlled action
New mechanism of action for a complete anti-aging improvement	Activation of HIF-1 $\alpha$ and lipohormesis
Strong clinical results	Provides outstanding and fast results on nasogenian folds

## LA SPIRIT CREAM 12.199.01 C108

INGREDIENT	INCI NAME	%
A Deionised water Dermofeel™ PA-12* Chlorphenesin Phenoxyethanol Granlux® AOX-GL* Biophilic™ H	Water	79.60
	Sodium Phytate	0.10
	Chlorphenesin	0.30
	Phenoxyethanol	0.80
	Glycerin (and) Picea Abies Extract (and) Alcohol Hydrogenated Lecithin (and) C12-16 Alcohols (and) Palmitic Acid	1.00 4.00
B Dermorganics GMS-SE* Mirasil DM350 Dekanex 2006 FG Phytosqualan Lecigel™	Glyceryl Stearate SE	1.00
	Dimethicone	4.00
	Hydrogenated Polydecene	3.00
	Squalane	2.00
	Sodium Acrylates Copolymer (and) Lecithin	1.50
C Adipofill'in™  Progeline™  Exo-H™	Water (and) Propanediol (and) Ornithine (and) Phospholipids (and) Glycolipids	0.50
	Glycerin (and) Water (and) Dextran (and) Trifluoroacetyl Tripeptide-2	2.00
	Butylene Glycol (and) Alteromonas Ferment Filtrate	1.00
D Douceur 3246	Fragrance	0.20

pH: 5.0 - 5.5 - Viscosity (Rheo ELV 8, spindle 4, 6 rpm, 3 mn): > 100 000 mPa.s

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LUCAS MEYER COSMETICS S.A.S.

ZA les Belles Fontaines  
99 route de Versailles  
91160 Champlan - France  
T: +33 (0)1 69 10 69 69 - F: +33 (0)1 69 10 69 70

LUCAS MEYER COSMETICS CANADA INC.

Place de la Cité, Tour de la Cité  
2600 boul. Laurier, #900  
Québec (Québec) - G1V 4W2 Canada  
T: +1 418 653-6888 - F: +1 418 653-6005

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www.lucasmeyercosmetics.com  
info@lucasmeyercosmetics.com