

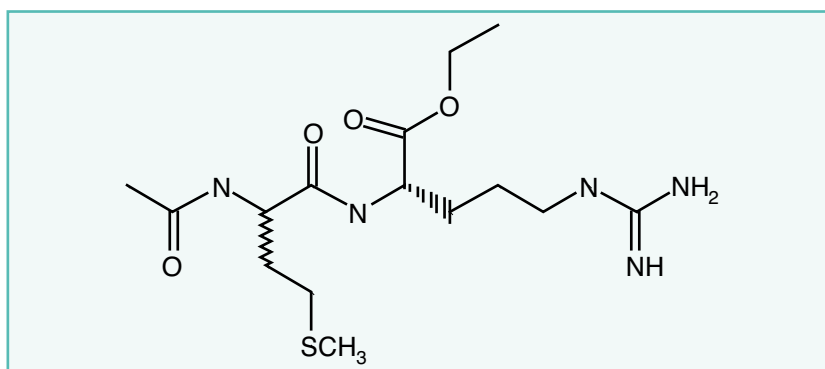
ARGILIP G

Solution of N-acetyl-(D,L) methionyl-L-arginine ethyl ester

INCI name: ETHYLARGININOATE ACETAMIDOMETHIONAMIDE (AND) GLYCERIN

Chemical definition

ARGILIP G is a stable, preservative free solution of the synthetic dipeptide N-acetyl (D,L) methionyl-L-arginine ethyl ester.



Composition

Acetyl methionylarginine ethyl ester	10%
Glycerin	90%

Technical characteristics

Limpid, yellow liquid
 Density at 20°C: around 1.0
 Miscible with water, alcohols and glycols

Availability

1, 5 or 30 Kg drums

Uses

Lipolytic anti-oxidant

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 Anti-cellulite

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 Slimming

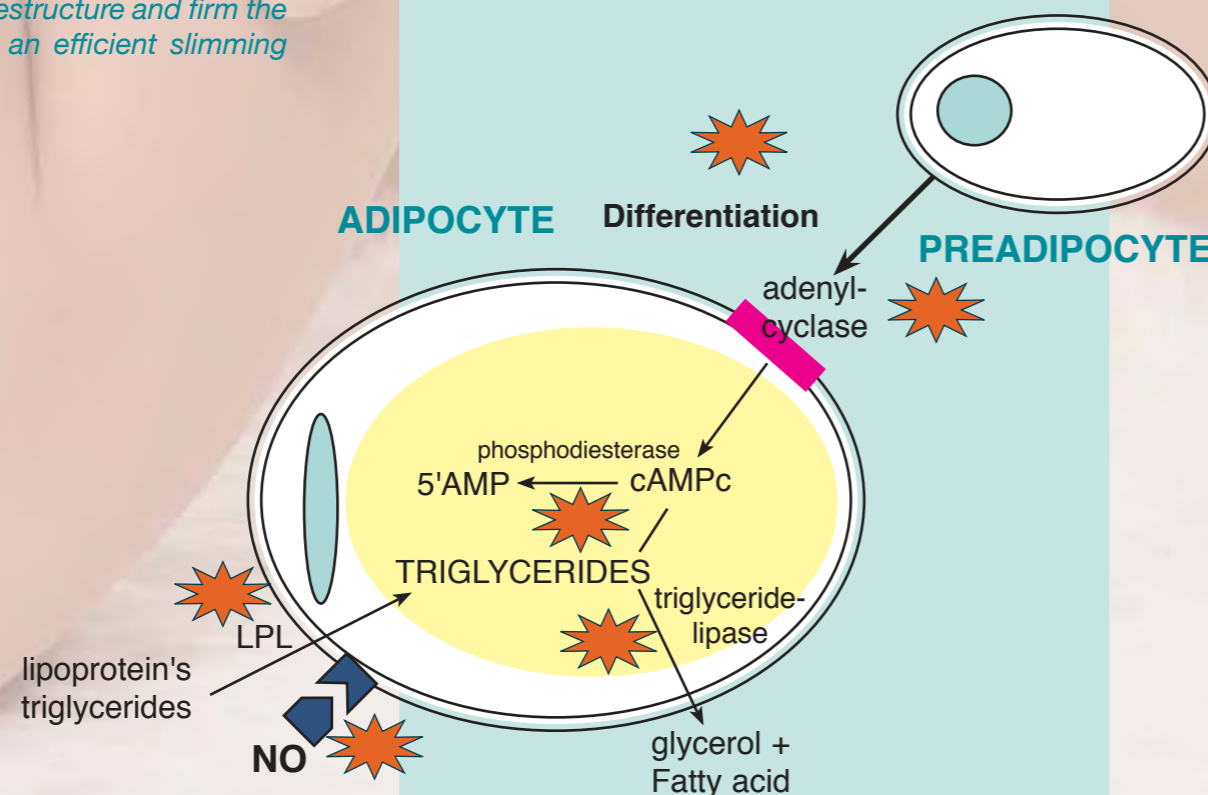
ARGILIP G: Lipolytic arginopeptide

GENERALITIES

As lipolysis knowledge increases among biologists, the triglycerides hydrolysis consecutive to phosphodiesterase, or adrenergic receptors related to the adenyl cyclase, appear as few of the multiple mechanisms concerned with slimming and anti-cellulite effects. Striving to develop innovative and active slimming products, cosmetic chemists focus on alternative functional processes involved in lipolysis. One of these alternative processes is a global treatment or action on the localized lipodystrophy, by limiting the preadipocytes proliferation and inhibiting the adipocyte differentiation and the lipogenesis. Other processes are also focusing on aromatherapy, increasing the penetration capabilities and the "fat burn" effect... Direct actions on proteins such as lipo protein lipase (LPL), G protein and neuropeptide Y are even discussed for certain categories of slimming products. Cafeisilane C, Theophyllisilane C, Exsymol's silanols, step into the slimming process at different stages, by increasing xanthic base bioavailability or activating the Adenyl cyclase or else inhibiting phosphodiesterase and LPL... These silanols also restructure and firm the tissue, essential for an efficient slimming products.

An original approach of the slimming mechanism has recently been discovered in our laboratories. It is based on the importance of an adipocyte messenger: NO, regulating the adipocyte metabolism; and arginine based antioxidants over the lipolysis.

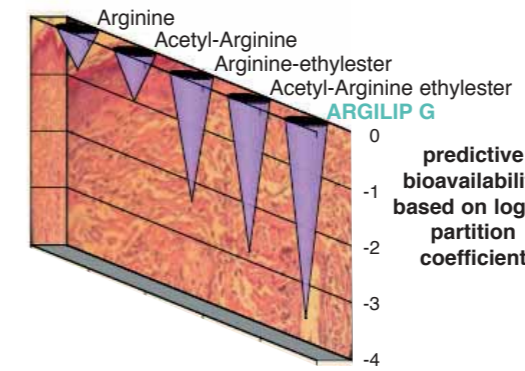
Therefore, we decided to further investigate arginine, substrate of NO-synthase and its derivatives. As a result of this research procedure, ARGILIP G was designed. Our biologists aimed at optimizing lipolytic agents' effects, suggested to associate the xanthic bases with molecules characterized by optimal bioavailability and likely to increase the NO expression.



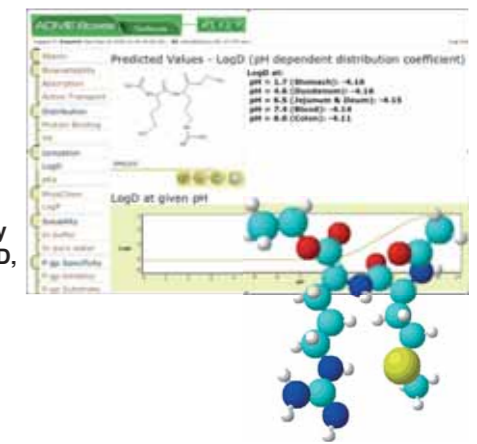
Structural and activity study

PREDICTIVE SOFTWARE

The main challenge of slimming factors is to reach the most effectively their target: adipocytes, localized in the deepest skin layer, the hypoderm. According to a predictive study on arginine based molecules, ARGILIP G was designed for an optimized bioavailability.



BIOAVAILABILITY OPTIMIZATION

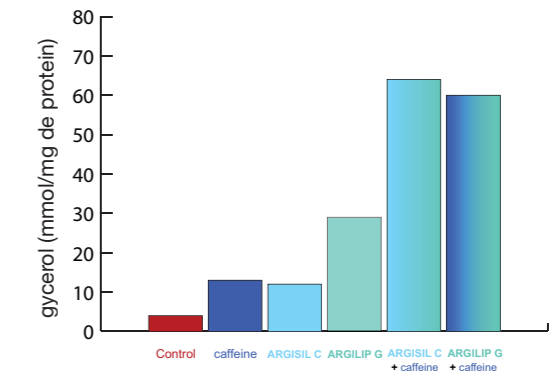


EXPERIMENTAL EVIDENCE

LIPOLYTIC EFFECT

ARGILIP G lipolytic effect was evidenced on mature 3T3-L1 cultures based on tests with the following products: Caffeine (at 0.04%), Argisil C, a standard arginate of silanol, (at 0.5%) and ARGILIP G (at 0.2%).

ARGILIP G interestingly high lipolytic activity is enhanced by its optimized capabilities for synergy.



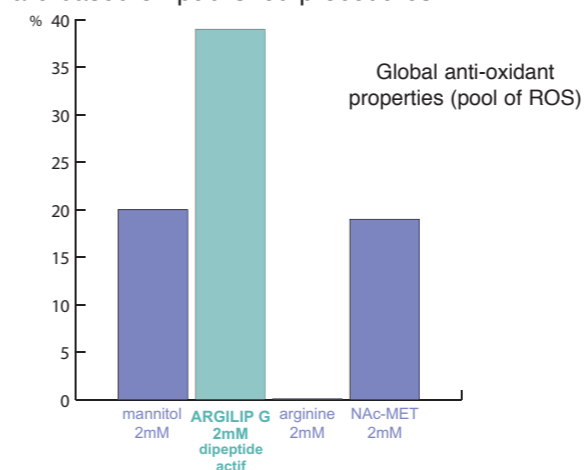
ANTI-OXIDANT EFFECT

Two procedures studying ARGILIP G anti-oxidant properties demonstrated:

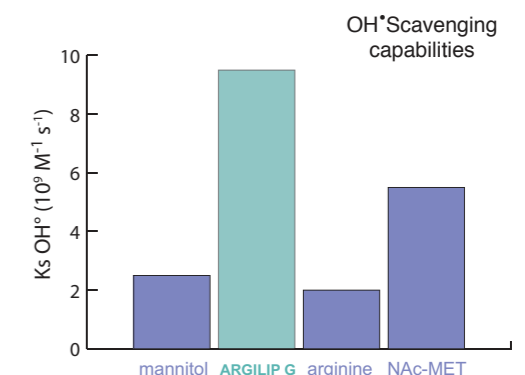
Its global anti-oxidant properties,

Its scavenging capabilities towards the hydroxyl radicals (considered as the most toxic Reactive Oxygen Species).

Both protocols are based on published procedures.



ARGILIP G anti oxidant capabilities demonstrate its excellent response.



ARGILIP G shows more efficiency at scavenging hydroxyl radicals than the standard (mannitol) or that of its metabolization products (arginine and NAc-Met).

Tolerance study

ARGILIP G tolerance is perfect.

Clinical tests have been performed to evidence the safety of **ARGILIP G** for cutaneous irritation, sensitization, phototoxicity and photoallergy.

Phototoxicity and genotoxicity have been carried out *in vitro*.

The ocular irritation potential has been carried out with the HET CAM technique.

The cutaneous irritation potential has been evaluated on human biopsies.

No mutagenic activity was induced on the selected bacterial strains (Ames test)

Formulation and precautions

Keep **ARGILIP G** refrigerated before formulation.

Store at 4°C protected from direct light.

Recommended use concentration: 0.5% - 2%.

AVAILABLE STUDIES

Lipolytic effect of arginine-based antioxidants
Evidence for nitric oxide promoted lipolysis

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Toxicity and tolerance studies