

REGU[®] -SLIM

*The ideal method
to re-shape and
smooth your body*

October 2020

Agenda

- ***The market***
- *The product*
- Claim substantiation
- Cosmetic use

Advice and talks around the best effective way to shape the body

HOW TO GET RID OF CELLULITE

There are a dizzying number of anti-cellulite products on offer, with most cellulite remedies lotions and other potions, massage, lasers and liposuction. Yet so far most of these treatments results, if any results at all. And analyzing the triggers, it makes sense. None of these treatments cellulite, at least not in any meaningful and lasting manner. To treat cellulite, you have to **just treat the symptom, treat the cause.** Feeding and repairing your skin from within cellulite in several ways:

- **Strengthen blood vessels/ boost circulation.** This is a key step in reducing cellulite, which nutrients important for healthy skin reach the dermis (the layer of skin which is damaged blood vessels and increasing blood flow helps to nourish skin cells and help remove toxins.
- **Promote the production of collagen, elastin and healthy connective tissue.** The skin is present of the skin and when it becomes damaged, it's not pretty. Firm, strong and healthy collagen provides structural support. It prevents fat cells from breaking through the lower layer of skin (where it belongs) and reaching the top layer of the skin where they cause the skin to become lumpy and uneven.
- **Hydrate and lock water into cells.** Hydrated cells are strong and firm, and act as barrier stopping fat cells from pushing to the top of the skin where they become visible and cause dimpling associated with cellulite.
- **Prevent and repair free-radical damage,** which can damage skin, predisposing it to cellulite.
- **Decrease inflammation,** which if prolonged (chronic) can cause free-radical damage and cell membrane deterioration, increasing the likelihood of cellulite.
- **Rebuild cell membranes.** Stronger cell membranes means your cells are better able to keep water in and remain hydrated.

FIRE AND ICE: NEW BODY SCULPTING TREATMENTS

Can one hour in a dermatologist's office do more than eons at the gym? Here, a report on the new wave of non-invasive temperature fat blasters



WHAT DO YOU WANT TO BE?

FIT, CONFIDENT, HAPPY.

HILARIOUS, TENACIOUS, STRONG, COOL.

HOT, RADIANT, BRIGHT, BRILLIANT...

THE TRUTH IS,
YOU CAN MAKE YOURSELF ANYTHING,
+ HAVE A LOT OF FUN DOING IT.
BUT ITS UP TO YOU TO MAKE IT HAPPEN.
YOU'RE IN CHARGE.

YOU ARE ENTIRELY UP TO YOU.

MAKE YOUR BODY
MAKE YOUR LIFE

MAKE YOURSELF

BLOGS

The Perfect Body



David Gandy 21 July 2010

Like 3 Tweet 0 8+1 0

perfect male

and muscular shape. But when did we worry?

The almost unattainable mystery of the modelling industry, to me, is one of its largest selling points. One of the most talked about, and possibly controversial aspects of the industry, is still body size - it often leads to strongly heated debates and marked opinion - and that I don't mind. It can be an interesting talking point and always provokes discussion - which is why I thought I'd blog about it this week.



Many women are critical with their body appearance

- “Among women over 18 looking at themselves in the mirror, research indicates that at least 80% are unhappy with what they see.”
- “Research confirms what most of us already know: the main focus of dissatisfaction for most women looking in the mirror is the size and shape of their bodies, particularly their **hips**, **waists**, and **thighs**.”

They are sensitive to their bodies specially when they observe visibly symptoms such as cellulite, also known as *orange peel skin*

“I would love to have a product that gives me confidence in my fight against orange peel skin.

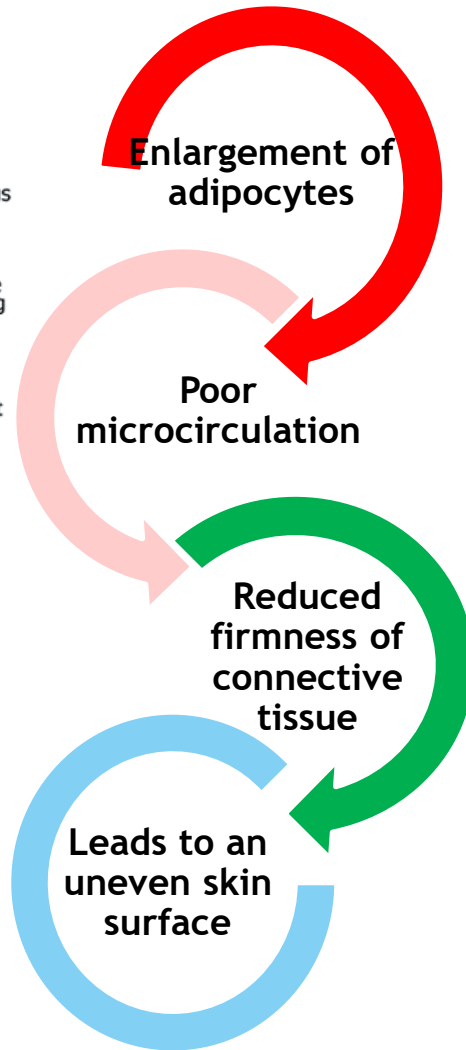
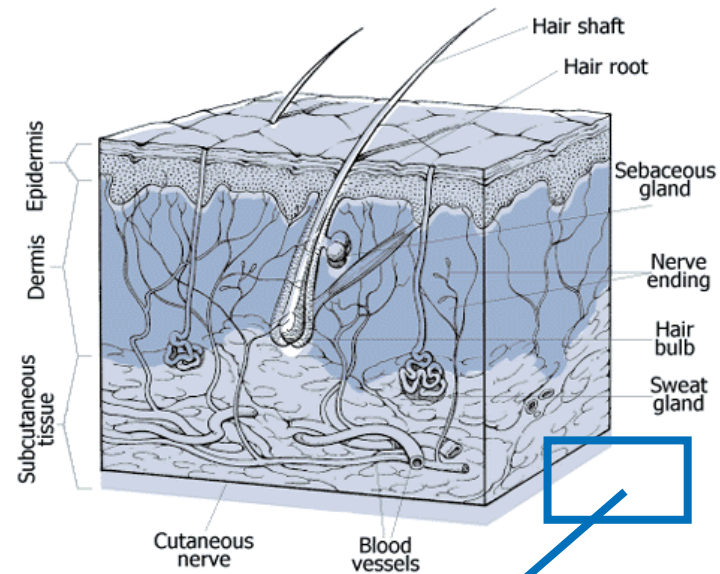
My dream would be a product, that provides my body with an even and smooth surface to relieve myself from the pressure of being perfect.”



Zooming into the skin

Where does cellulite have its origin?

Adipocyte infiltration stands at the beginning of a negative cycle



Characteristic:

Deposits of **subcutaneous fat** within the connective tissue that provides an appearance of nodules turning into a **bumpy surface**

Orange peel skin is not mandatory related to overweight. Alternative reasons: hormonal aspects, diet, genetic factors, certain lifestyle...

85% of women over the age of 20 have a degree of cellulite

Agenda

- The market
- ***The product***
- Claim substantiation
- Cosmetic use

REGU[®]-SLIM

a unique blend to re-shape
and smooth your body

L-Carnitin

Caffeine

Cysteic acid

Pantetheine-S-
Sulfonate



4 in 1 complex for outmost activity

L-Carnitin

L-Carnitin transports long-chain fatty acids across the inner mitochondrial membrane to the mitochondrial matrix, where β -oxidation of fatty acids takes place.

Caffeine

Caffeine exerts lipolytic effects through the inhibition of phosphodiesterase (PDE) and induction of cyclic adenosine monophosphate (cAMP) in adipocytes.

Cysteic acid

Cysteic acid is a cAMP inducers. cAMP is an activator of protein kinase A which activates again hormone sensitive lipase (HSL). HSL decompose triglycerides into free fatty acid (FFA) and glycerol.

Pantetheine-S-Sulfonate

Pantetheine-S-sulfonate is a precursor of Coenzym A (CoA). In cytoplasma FFA are activated by binding to CoA. Just in this activated condition FFA can be formed to acyl-carnitine and transported across the mitochondrial membrane.

REGU[®]-SLIM- unique mechanism build on 3 main activities

1. cAMP stimulator and phosphodiesterase inhibitor

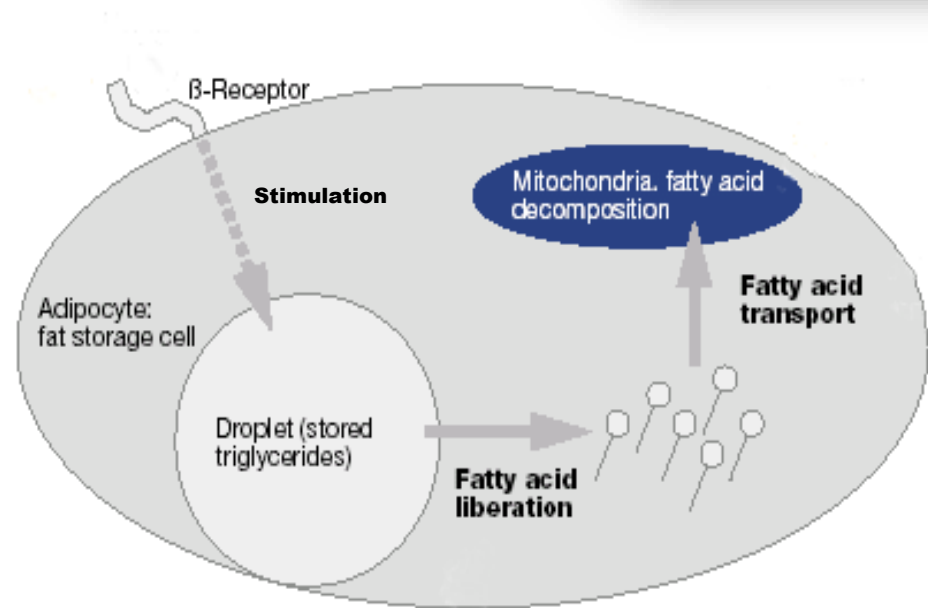
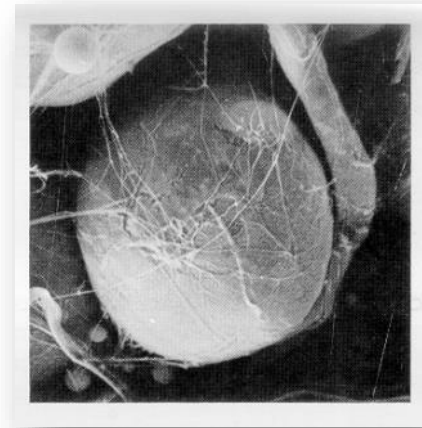
=> Caffeine, Cysteic acid

2. Fatty acid liberation and transport promoter

=> Carnitin, Cysteic acid, Pantetheine-S- Sulfonate

3. beta-oxidation stimulator

=> Carnitin, Pantetheine-S- Sulfonate

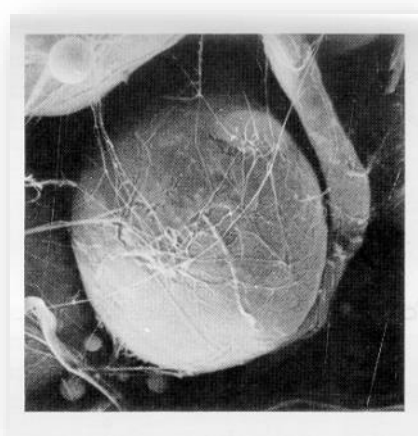


Agenda

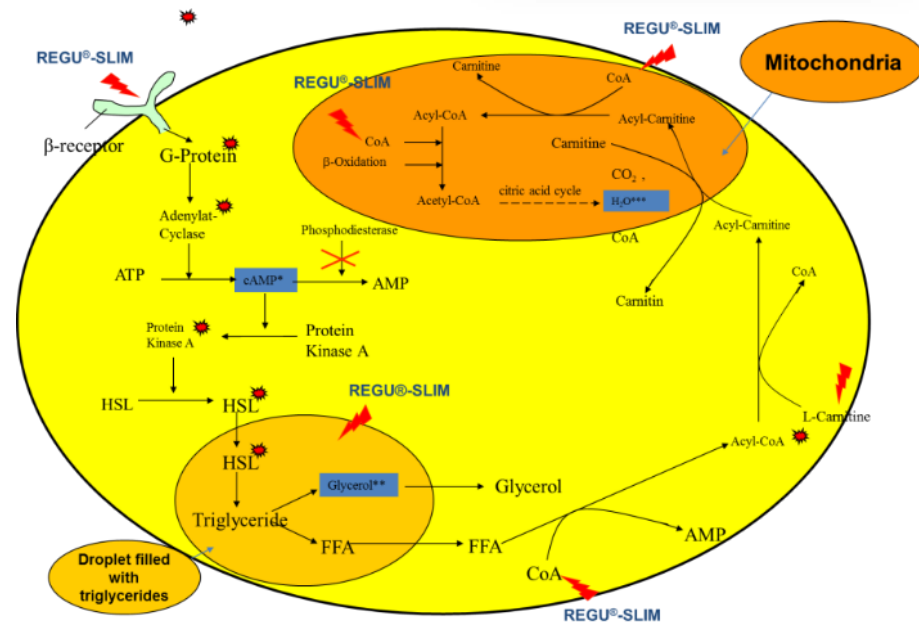
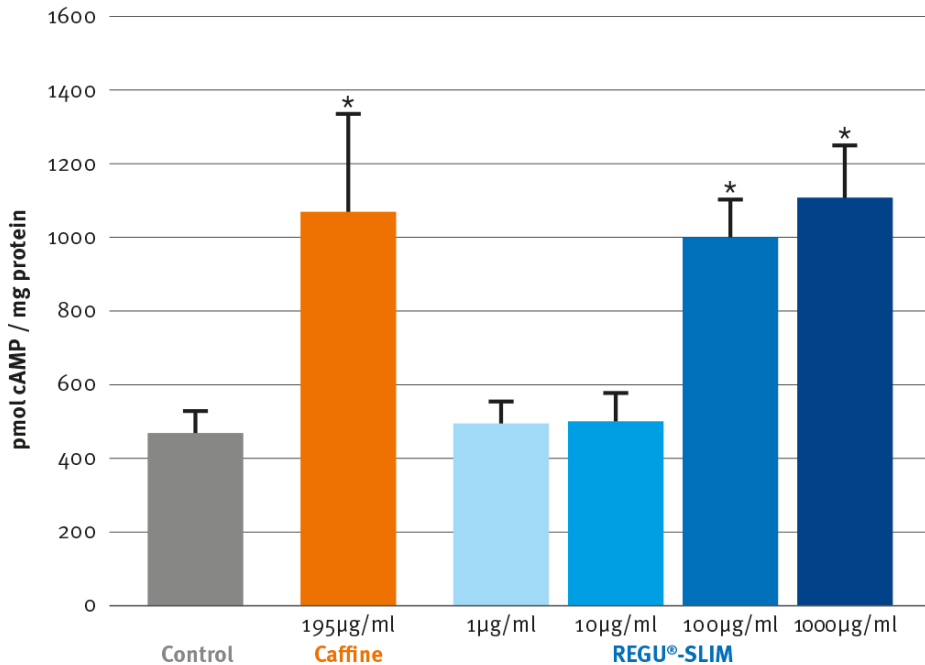
- The market
- The product
- ***Claim substantiation***
- Cosmetic use

1) REGU[®]-SLIM cAMP stimulator and phosphodiesterase inhibitor

Triggers off the lipolysis process in human adipocytes *in-vitro*

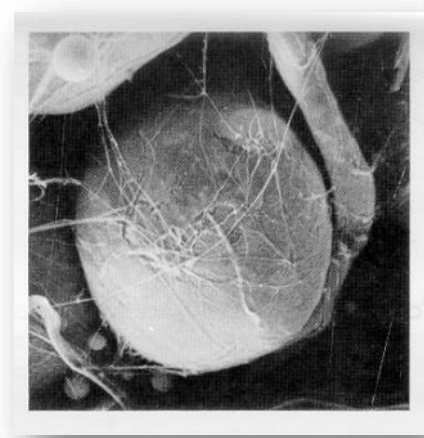


Concentration of signaling molecule cAMP

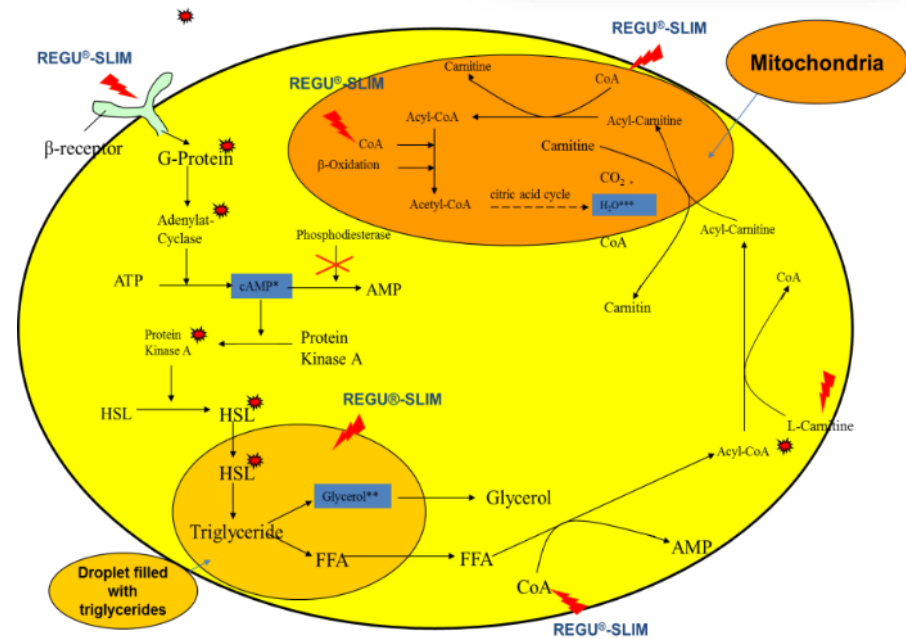
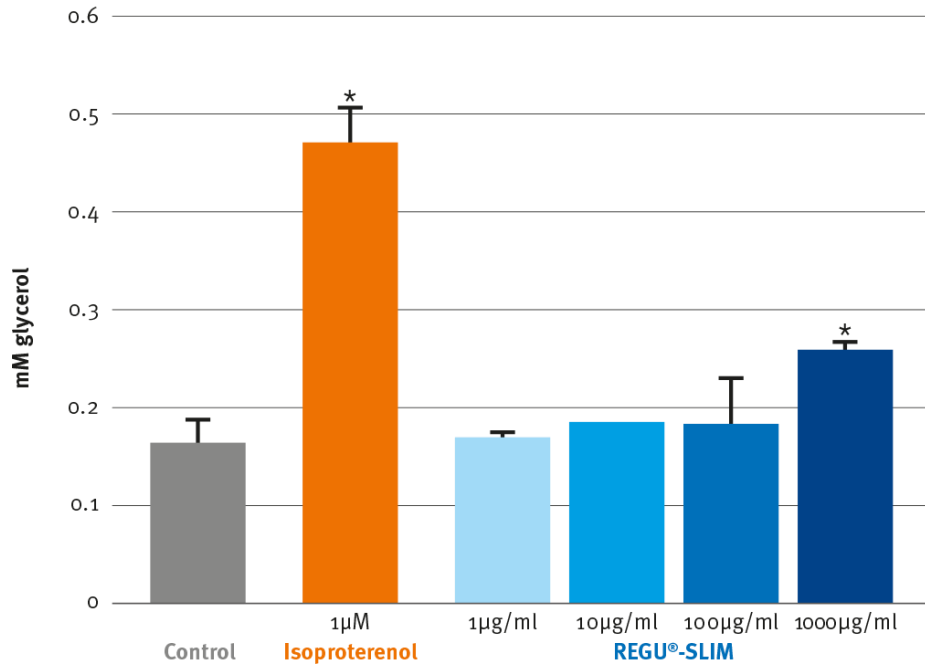


2) REGU[®]-SLIM fatty acid liberation and transport promoter

Significantly enhances the hydrolysis of triglycerides in human adipocytes *in vitro*



Concentration glycerol in cell fluid

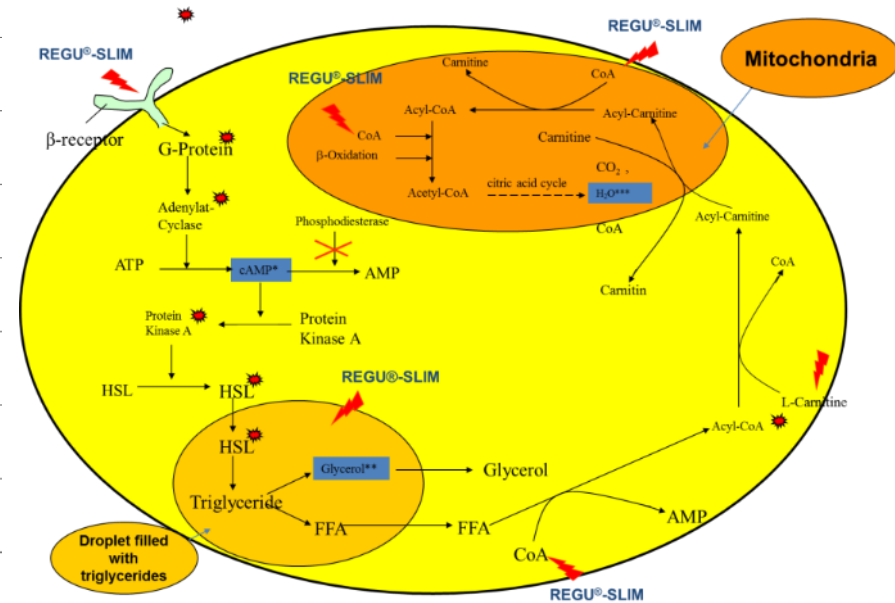
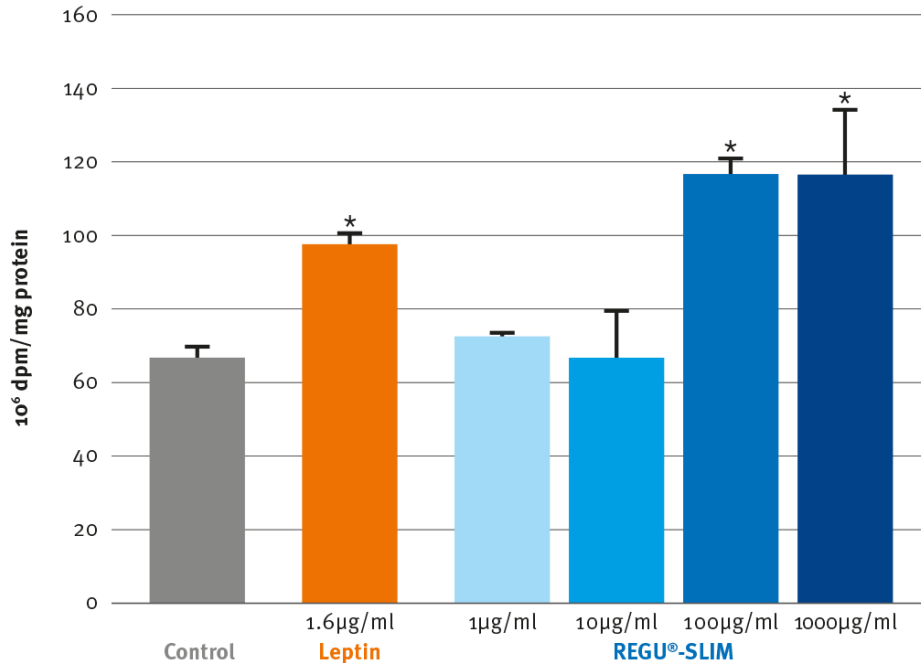


3) REGU[®]-SLIM β -oxidation stimulator



Accelerates the oxidation of free fatty acids in mitochondria *in-vitro*

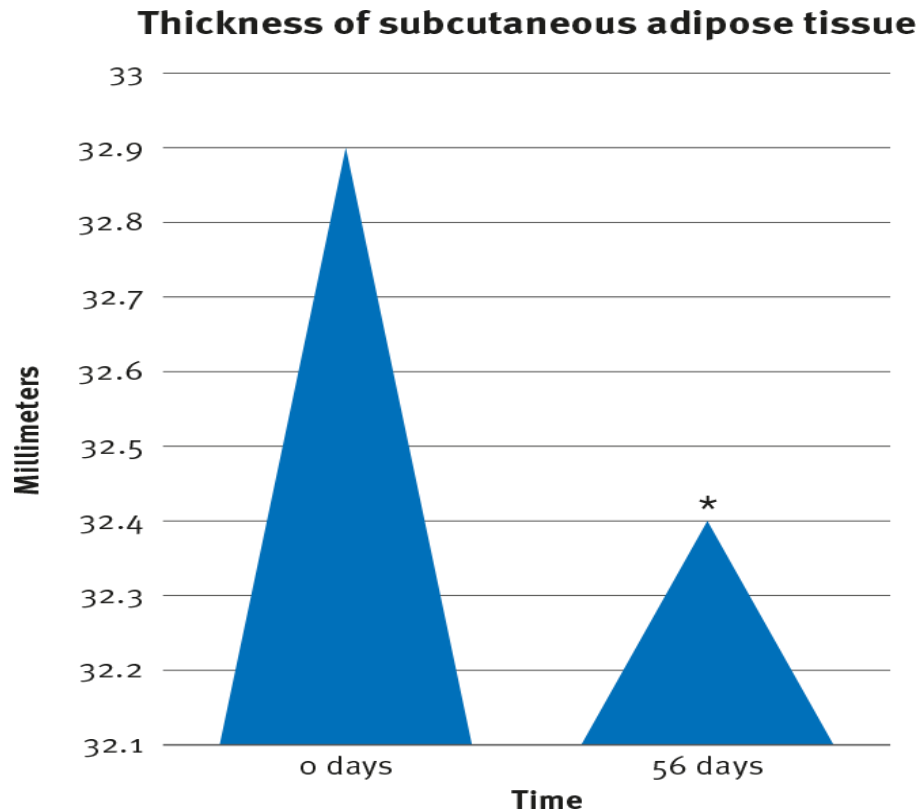
H₃O from H₃-Palmitate



REGU[®]-SLIM dramatically reduces the thickness of adipose tissue



20 subjects with moderate cellulite were treated with a formulation containing 2% REGU[®]-SLIM twice a day for 56 days.

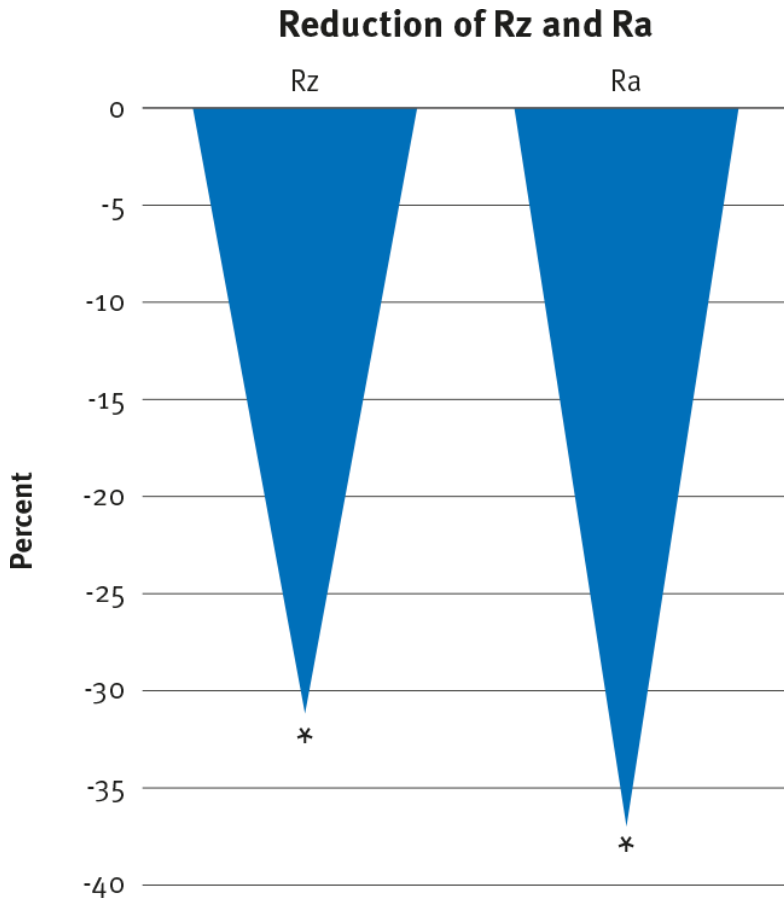


REGU[®]-SLIM drastically reduces the thickness of adipose tissue (ultra-sound imaging).

REGU[®]-SLIM significantly reduces the orange peel aspect of tight skin *in vivo*



20 subjects with moderate cellulite were treated with a formulation containing 2% REGU[®]-SLIM twice a day for 56 days. The roughness parameters Ra and Rz were determined on pinched thighs by profilometry.



Significant decrease of Ra and Rz could be observed for the thighs treated with REGU[®]-SLIM after 56 days of application.

Agenda

- The market
- The product
- Claim substantiation
- ***Cosmetic use***

REGU[®]-SLIM

What is in for the **consumer**?

- Decreases the appearance of **orange peel skin**
- supports subcutaneous **fat diminishment**
- Visible improvement of **the aspect and state of the skin**
- The ideal method to **re-shape and smooth** your body

REGU[®]-SLIM

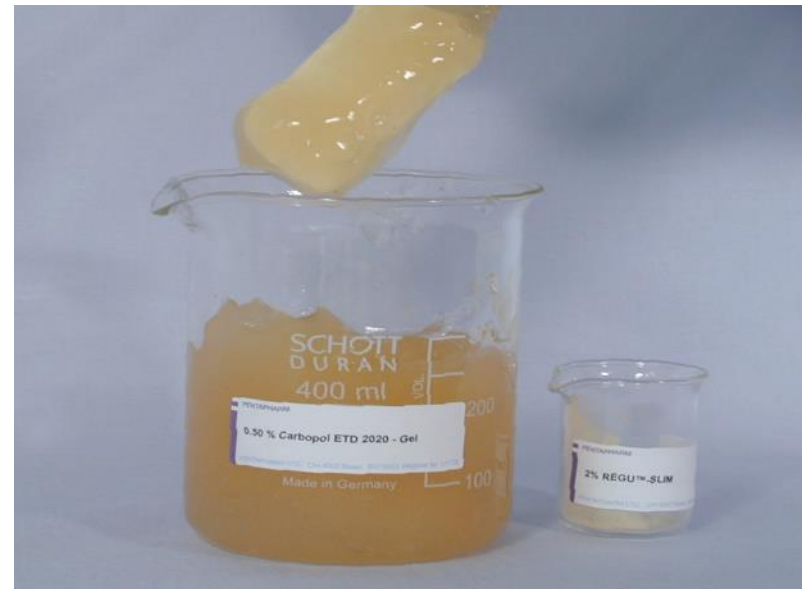
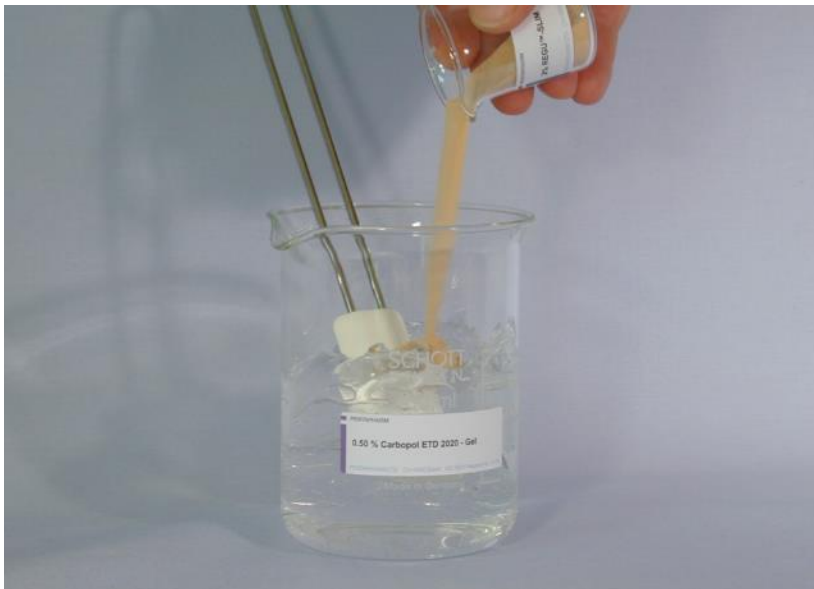
Regulatory Status

Global Status	REGU [®] -SLIM may be globally commercialized. See specific statement for more details	✓
China Status	Chemical notification (IECSC)	✓
	Chinese INCI name	✓
	2004 CTFA inventory	✓
	SFDA list (IECIC)	✓
INCI name (active)	Caffeine, Paullinia Cupana Seed Extract, Carnitine, Cysteic Acid, Calcium Pantetheine Sulfonate	✓
Suggested use level	0.5 -3 % REGU [®] -SLIM	✓

REGU[®]-SLIM

Application and handling

REGU[®]-SLIM – a granulated powder



- Dispersible granulate is very easy to formulate
- Can be incorporated in any type of formulation
- Highly concentrated active ingredient

Formulation Guidelines

- Dosage:** For skin care / body shaping preparations a concentration of 0.5-3 % REGU[®]-SLIM is recommended.
- Processing:** REGU[®]-SLIM can be processed either warm (80°C) or cold and is preferably incorporated as a powder at the of the formulation process.
- pH:** The optimal pH-range of a formulation with REGU[®]-SLIM is between 3 and 7.
- Ethanol:** REGU[®]-SLIM is compatible with up to 30 % ETHANOL.
- Storage:** Between 15 and 25°C in the original sealed container, protected from light in a clean place. REGU[®]-SLIM is hygroscopic, and in order to avoid a high humidity absorption following opening, containers should be handled with special care and hermetically closed after use. Once opened, use contents quickly.

Application Concept with REGU®-SLIM

Body Firming Lotion for In Vivo Study

With REGU®-SLIM

This transparent water in silicone lotion was formulated with DSM's body shaping ingredient REGU®-SLIM. It shows a good penetration and was used to perform an in vivo study.

Phase	Ingredients	INCI Name	% w / w	Supplier
A	Abil EM 97	Bis-PEG/PPG-14/14 Dimethicone, Cyclopentasiloxane	20.00	100415
	Belsil CM 040	Cyclopentasiloxane	38.00	100452
B	Water dem.	Aqua	20.00	
	Propylene Glycol	Propylene Glycol	19.50	100134
	Sodium Chloride	Sodium Chloride	0.50	100230
	REGU®-SLIM	Paullinia Cupana Seed Extract & Carnitine& Maltodextrin & Microcrystalline Cellulose & Cysteic Acid & Caffeine & Calcium Pantetheine Sulfonate	2.00	100288

SK-E-100001-55

Procedure

- 1 Mix separately phases A and B at room temperature to obtain homogeneous phases.
- 2 Add phase B to phase A and homogenizing.

Supplier

100288 DSM Nutritional Products Ltd.
100415 Evonik Goldschmidt GmbH
100134 Fluka Chemie AG

100230 Merck KGaA
100452 Wacker Chemie AG

Disclaimer

Copyright © 2021 DSM Nutritional Products, 4002 Basel, Switzerland.

www.dsm.com/personal-care. All rights reserved.

Although DSM has used diligent care to ensure that the information provided herein is accurate and up to date, DSM makes no representation or warranty of the accuracy, reliability, or completeness of the information. This presentation only contains scientific and technical information for business to business use. Country- or region-specific information should also be considered when labeling or advertising to final consumers. This publication does not constitute or provide scientific or medical advice, diagnosis, or treatment and is distributed without warranty of any kind, either expressly or implied. In no event shall DSM be liable for any damages arising from the reader's reliance upon, or use of, these materials. The reader shall be solely responsible for any interpretation or use of the material contained herein. The content of this document is subject to change without further notice. Please contact your local DSM representative for more details. All trademarks listed in this brochure are either registered trademarks or trademarks of DSM in The Netherlands and/or other countries unless explicitly otherwise stated.

Disclaimer formulation guideline

“This information is for illustration purposes only and based upon our current knowledge and experience at the time of printing. We do not make any representation or warranty of any kind, express or implied, including merchantability or fitness for a particular use, with respect to such information or its application. Use of this information is at your discretion and risk. Nothing herein relieves you from carrying out your own suitability determinations and tests. You are responsible for observing all laws and regulations relevant to your products, uses or processes. We do not assume any liability in connection with your product and its use. The foregoing information and suggestions are also provided without warranty of non-infringement as to the intellectual property rights of third parties, and shall not be construed as any inducement to infringe the rights of third parties.”)



BRIGHT SCIENCE. BRIGHTER LIVING.™