

ACTIBIOME Rebalances your Microbiota for healthier and more homogenous complexion

Love your Skin Microbiota! It makes your skin Healthy

Skin microbiota defines all the micro-organisms living on skin surface. It is determined from birth, it ensures skin's health, its homeostasis, and also its beauty.

Microbiota communities on the skin contribute to host immune defense through a variety of mechanisms:

INHIBIT PATHOGEN GROWTH

Occupy space and nutrients Produce bactericidal compounds

EDUCATE ADAPTIVE IMMUNITY

Tune local cytokine production. Influence lymphocytes in epidermis.

ENHANCE INNATE IMMUNITY

Increase anti-microbial peptides production. Decrease inflammatory injury. Strengthen epidermal barrier.

Functions of the skin microbiota in health and disease. James A. Sanford and Richard L. Gallo. Semin Immunol. 2013 November 30; 25(5): 370-377.

Love your Microbiota! It is fragile.

Every day, exposed to UVs, pollution or even stress, microbiota balance is threatened and can disrupt, leading to dysbiosis and skin disorders.

An imbalance of microorganisms (called dysbiosis) exists in numerous pathologies, these results have presented a sort of "chicken-or-the-egg" type story.





Functions of the skin microbiota in health and disease. James A. Sanford and Richard L. Gallo. Semin Immunol. 2013 November 30; 25(5): 370-377.

OUR FRAGILE MICROBIOTA Codif has studied the impact of our lifestyle on skin microbiota.

Carrier, children, family, friends... There are days when life becomes really hectic. Your complexion is more dull, redness appear.

What happens exactly on the surface of your skin?

3 groups of volunteers aged between 20 and 44 have been studied: 22 volunteers identified "without hectic lifestyle" 30 volunteers identified "with temporary hectic lifestyle", applying a placebo twice daily for 1 week 30 volunteers identified "with temporary hectic lifestyle", applying 1% Actibiome PE twice daily for 1 week

Sampling of skin microflora on the cheek Analysis of the full microbiota print of each volunteer (full DNA analysis) **Analysis of differences between hectic and non hectic volunteers.**





INVESTI-GATION

OUR FRAGILE MICROBIOTA When life becomes temporary hectic, skin microbiota is dysbalanced

The microbiota print of the skin is totally different during a hectic period.







Actinobacillus

Selenomonas
Staphylococcus
unclassified
Vitreoscilla

OUR FRAGILE MICROBIOTA Imbalance of microbiota is coupled with the apparition of skin disorders.





INVESTI-GATION

OUR FRAGILE MICROBIOTA What happens exactly on skin surface?



A hectic period also impacts microbiota <u>diversity</u>. Some genus are increased while others are disappearing. This dysbalance is mainly characterized by:

An increase of anaerobic bacteria potentially pathogenic					
Finegoldia	Anaerobic and potentially pathogenic for the skin	Development of symptoms linked to the activation of skin defenses systems: INFLAMMATION / REDNESS			
Peptoniphilus	Aanaerobic, can lead to infections				
Dialister	Anaerobic, can lead to infections				
Gardnerella	Anaerobic, becomes pathogenic when associated with anaerobic flora				
An increase of acidophilic bacteria					
Lactobacillus	Produces lactic acid	ACIDIFICATION OF SKIN PH			
Lactococcus	Metabolizes sugars in lactic acid				
A decrease of protective bacteria					
Deinococcus	Resistance to UVs and gamma rays.	Development of symptoms linked to INFLAMMATION / HETEROGENITY OF THE COMPLEXION			



BUSY LIFE AND MICROBIOTA PRINT How a hectic day can impact skin's health & skin's beauty:







Our Solution

A HEALTHY & BALANCED DIET for your microbiota.

Whether we are unique, with different lifestyles, it is commonly admitted that:

We all need a healthy and balanced diet. WHY NOT OUR MICROBIOTA?



ACTIBIOME



ACTIBIOME Healthy & balanced composition

Actibiome is a combination of different components aimed to bring a variety of nutrients to ensure the biodiversity and homeostasis of the skin microbiota.

NUTRITION FACTS For 100g

Brown seaweed extract Sugars + Polyols		25g
Green micro-alga extract Amino acids + peptides		30g
Marine ExoPolySaccharide So Polysaccharide	lution	25g
Earth Marine Water <i>Minerals</i> + <i>trace-elements</i>	20g	





ACTIBIOME Benefits of its composition for skin microbiota

stresses. They maintain stable environmental

conditions by protecting bacteria against

desiccation.

ACTIBIOME

and synthesis of proteins.

MINERALS FOR DIVERSITY CARBON FOR ENERGY Minerals are involved in many metabolic Sources of organic carbon. As the most important pathways. This diversity of minerals allows the constituent of bacteria, they represent a source of development of as many different species as energy for the cutaneous flora. possible, with conventional or more specific nutritional needs. Minerals Sugars + Polyols Poly-POLYSACCHARIDES FOR saccharides COMMUNICATION AND PROTECTION Amino acids NITROGEN FOR GROWTH Exopolysaccharides are known for their + peptides Peptides of sizes between 200 and 3000 involvement in intercellular communication and Daltons. A source of organic nitrogen that their protective properties against environmental provides amino acids for bacterial growth

CODIF Technologie nature lie

ACTIBIOME Within 1 week, Actibiome reverses the dysbalance induced by a temporary hectic period







ACTIBIOME Actibiome reverses 65% of genus previously disbalanced by stress vs 35% for placebo; and thus reinforces microbiota diversity.

IN-VIVO 7D / 1% ACTIBIOME PE

AMONG THEM:		EFFECT OF ACTIBIOME	EFFECT OF PLACEBO			
Genus increased by stress & potentially linked to inflammation						
Finegoldia	Anaerobic and potentially pathogenic for the skin	-30%	-36%			
Peptoniphilus	Aanaerobic, can lead to infections	-51%	-47%			
Dialister	Anaerobic, can lead to infections	-23%	0			
Gardnerella	Anaerobic, becomes pathogenic when associated with anaerobic flora	-40%	+133%			
Genus increased by stress & potentially linked to acidification of skin pH						
Lactobacillus	Produces lactic acid	-12%	-4%			
Lactococcus	Metabolizes sugars in lactic acid	-16%	+45%			
Genus decreased by stress & potentially linked to skin protection						
Deinococcus	Resistance to UVs.	+400%	+100%			



ACTIBIOME After microbiota, physiological skin disorders are rebalanced within only 1 week.

Rebalances skin pH

6,4 ** 17,5 ** 17,3 + ACTIBIOME 6,2 PLACEBO 17,1 PLACEBO 9,61 er 16,7 16,5 16,3 16,3 16,1 6 HECTIC PERIOD Skin pH units 9'9 9'9 ACTIBIOME + + 5,4 ERI(+ 15,9 5,2 15,7 Δ 5 15,5



IN-VIVO 7D / 1% ACTIBIOME PE

PROTOCOL

Analysis of skin redness by chromameter, analysis of skin pH by pH meter.

**p<0.05 Student test

ACTIBIOME Rebalances visible skin imperfections within 1 week

Scorage by specialized clinician using numeric scale.

IN-VIVO 7D / 1% ACTIBIOME PE



ACTIBIOME Improves skin health & beauty within 1 week

Volunteers self evaluation using numeric scale

*p</= 0.1 Student test **p<0.05 Student test

IN-VIVO 7D / 1%

ACTIBIOME PE





Your microbiota makes you unique!

It is one of the main contributors of your skin's health.

And more than ever, HEALTH IS BEAUTY!

Did you know that 83% of consumers would be interested in using a cosmetic able to support skin's health?



SKIN HEALTH SKIN BEAUTY SKIN MICROBIOTA

Consumers Survey...



PROMOTOR CODIF Technologie Naturelle

INVESTIGATOR Laboratoire Spincontrol

540 WOMEN DECLARING NORMAL AND/OR SENSITIVE SKINS

All the data are based on volunteers declaration





Is skin's BEAUTY conditioned by skin's HEALTH?



MARKET SURVEY

540 persons, 30-55 years, declaring having sensitive and/or normal skin. Study promoted by CODIF TN.

73% of consumers think that skin beauty depends on skin's health.

But although most of them daily use product for skin beauty, <u>only</u> <u>56% daily use products for skin health</u>.

*p<0.05 student test





Interested in a cosmetic that daily supports skin's health?

CODIF SURVEY

MARKET SURVEY

540 persons, 30-55 years, declaring having sensitive and/or

normal skin.

Study promoted by CODIF TN.

83% of consumers would like to use a cosmetic able to maintain skin's health.

They consider that some skin disorders are directly linked to skin's health imbalance:

- Dull complexion for 71% of them
- Skin dehydration for 58% of them
- Skin redness for 35% of them

*p<0.05 student test



Are consumers ready for microbiota?

CODIF considers Microbiota as a vibrant actor and essential partner of skin's health. And consumers too!

After describing skin flora as micro-organisms living on skin surface, and promoting its homeostasis and protection:

think that it plays major role in skin's HEALTH

think it plays major role in skin's BEAUTY

think we should act by <u>FAVORING FLORA DIVERSITY</u> instead of promoting major species or eradicating less beneficial flora.



MARKET SURVEY

540 persons, 30-55 years, declaring having sensitive and/or normal skin. Study promoted by CODIF TN.



*p<0.05 student test

93%*

89%*

75%



ACTIBIOME - HOW TO USE?

TO REINFORCE SKIN MICROBIOTA

Provides a healthy and balanced diet for skin microbiota Rebalances skin microbiota disturbed by busy lifestyle conditions

FOR A HEALTHIER COMPLEXION

Rebalances anaerobic and acidophilic bacteria potentially involved in skin inflammation Rebalances skin pH Improves skin health Improves complexion homogeneity

TO TREAT SKIN DISORDERS

Decreases skin redness Decreases skin imperfections Improves skin beauty

FORMULATION RECOMMENDATIONS

Water soluble active ingredient to formulate up to 50°C. Formulation guide available on request

HOW TO USE

INCI

ACTIBIOME PE

Water (and) Seawater (and) Glycerin (and) Laminaria digitata extract (and) Chlorella vulgaris extract (and) saccharide isomerate (and) phenoxyethanol (and) ethylhexylglycerin

ACTIBIOME GPA

Glycerin (and) Water (and) Seawater (and) Laminaria digitata extract (and) Chlorella vulgaris extract (and) saccharide isomerate (and) **phenethylalcohol**

> % OF USE ACTIBIOME PE: 1% ACTIBIOME GPA: 2%

ECOCERT & COSMOS GPA version APPROVED



INDICATIVE FORMULA Bio-Balance

CODIE

CODIF

Phase	Raw material	INCI	%
А	DEMINERALIZED WATER	Aqua (water) / eau	85.63
В	ELESTAB CPN	Chlorphenesin	0.27
	DERMOFEEL PA-3	Sodium phytate & Aqua (water) / eau & Alcohol	0.10
С	LECIGEL	Sodium acrylates copolymer & Lecithin	2.00
D	CAPRYLIC/CAPRIC TG MB RSPO	Caprylic/capric triglyceride	5.00
	CETIOL SB 45	Butyrospermum parkii (shea) butter	5.00
	PHENOXYETHANOL	Phenoxyethanol	0.80
E	COVI-OX T90EU C	Tocopherol & Helianthus annuus (sunflower) seed oil	0.05
	ACTIBIOME PE	Aqua & Sea water & Glycerin & Laminaria digitata extract & Chlorella vulgaris extract & Saccharide isomerate & Phenoxyethanol & Ethylhexylglycerin	1.00
	FRAGRANCE	Fragrance	0.10
	NAOH SOLUTION NAOH 6.25N	Aqua (water) & Sodium hydroxide	0.05
			100.00





ACTIBIOME

Healthy & balanced diet for skin microbiota.

It rebalances bacteria previously impacted by hectic life and reverses the effect of microbiota dysbiosis on skin pH, redness and complexion.

Within 1 week treatment, volunteers observe a global improvement of skin health and skin beauty.

TO COMBINE WITH:

PHYCOSACCHARIDE AI:

To repair and sooth sensitive and damaged skins.

HYDRASALINOL:

To stimulate the synthesis of lipids that compose lipid cement and reinforce epidermis cohesion.





www.codif-tn.com