

HELIION BIO SCIENCES

MOLECULES FOR A BETTER TOMORROW

Helixion Biosciences founded in the year 2021 with its expertise in biomaterial science & process innovation, endeavor to achieve its objectives to provide high quality and innovative biomolecules thus accelerate towards a better future being a part of different biotechnological solution for Personal Care, Healthcare and Nutraceuticals.

Path Breaking
Innovation

Unleashing the
power of Nano
Technology

Sustainable and
High Efficacy
Ingredients
Development

New Ideology
Molecule Level
Solution

Functional
Bio-Actives for
Personal Care,
HealthCare and
Nutrition.



CORE TECHNOLOGY

HELIXION BIOSCIENCES IS WORKING ON



In House -Specific target Enzyme Concoction Development for Fermentation process



- Enzyme Hydrolysis
- Fermentation Technology
- Nano Technology



Nano-Conjugation Technology



**Acylation Technology
(Oil soluble products)**

SCIENTIFIC SUPPORT PARTNER



Senza ZEN -SWEDEN



CSIR-CDRI - CENTRAL DRUG RESEARCH INSTITUTE - LUCKNOW



CCFT -INDIA



INDIAN TOXICOLOGICAL RESEARCH INSTITUTE- Lucknow (INDIA)

Patented Technology :

Patent No. : 573921
Date of Grant : 17/11/2025

Our Patent has been the process of Nanotechnology developed to break down complex Plant base/ Natural molecules in to Nano- Actives (like breaking down of Keratin Protein Complex to Keratin Nanopeptides) , to super- enhance Bioabsorption, Sustained Release with much Superior and targeted functional deliveries compared to regular Botanic extracts/ powders.

Patented Pending Technology :

Application Number: 202541023388
Application Date : 17/03/2025

This Patent application has been on Developing a Nano- Conjugation Technology , where Nano- Peptides/ Other Nano - Biomolecules are used to conjugate with other complex molecules/ lipids to enhance Bio-absorption, Sustained release with targeted and superior functional deliveries.

HELIION
BIO SCIENCES

molecules for a better tomorrow.....

GREEN PDRN

Poly Deoxyribonucleotides



Helixion Biosciences has **Pioneered the PDRN technology** where the specific focus has been in developing PDRN that has **Rice Embryo/Bran as base & Banana Peel** as base as only both has certain % of DNA that matches with Human DNA in the Vegan Segment - Rice -25-30% & Banana - 50-55%. With this as Base infused with Rose/Cica/ Green Coffee/ Ashwagandha / Microbiome (like Lactobacillus or Bifidobacterium) and Ginseng PDRN where Specific blends of these is being worked out by our Scientists to cater both the Skin Care & Hair Care segments.

For Personal Care Formulations





ORYUVAN™-PDRN (A GREEN PDRN)

Poly Deoxyribonucleotides – Rice bran/Embryo

ORYUVAN™-PDRN is a mixture of DNA fragments that are extracted from Rice Bran/Embryo. This is 100% plant source/ Vegan using Eco-friendly process without any hazardous chemical.



PRODUCT SPECIFICATION

INCI NAME	Sodium DNA and Water and 1,2 Hexanediol and Butylene Alcohol and EthylhexylGlycerine
Appearance	Milky, opaque Liquid Suspension
DNA Content	4,500 mg/kg to 100,000 mg/kg, i.e, Min. 0.45% Punc. Product to 10% Concentration Product.
DNA Purity (UV Absorbance-260/280)	1.70 Ration of Absorbance (Purity 90-95%)
Recommended Dosage	0.5 - 1.5%

Helixion Biosciences has **Pioneered the PDRN technology where the specific focus has been in developing PDRN that has Rice Embyo/Bran as base & Banana Peel as base** as only both has certian % of DNA that matches with Human DNA in the Vegan Segment - Rice -25-30% & Banana - 50-55%. With this as Base infused with Rose/Cica/ Green Coffee/ Ashwagandha / Microbiome (like Lactobacillus or Bifidobacterium) , Gensing & Keratin PDRN where with Sepsific blends of these is being worked out by our Scientists to cater both the Skin Care & Hair Care. segments.

Efficacy Example: Green PDRN

- Rice is rich in Phenolic Compounds, Betane and Squalene
- Demonstrated Anti Aging, Anti Inflammatory and Whitening

Mechanism of Action

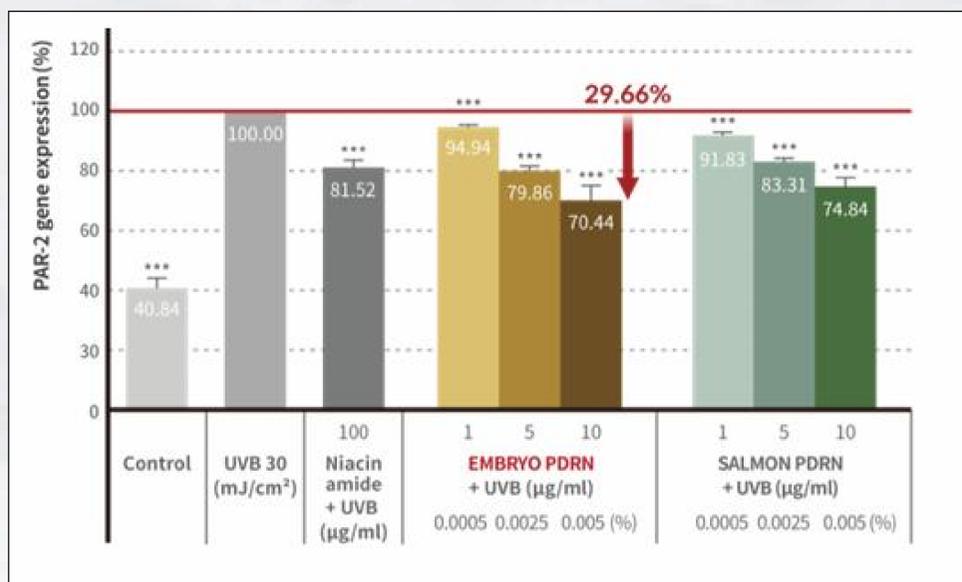
PDRN (Poly Deoxyribonucleotides) helps in :

- Provide Purines & Phyrimidine Rings to for the "Cell Savage Pathway"
- Generating Nucleotides & Nucleosides to contribute to DNA formation.
- Cell Proliferation leading to a faster tissue regeneration & wound healing.

Role as ADENOSINE A24 Receptor Activator

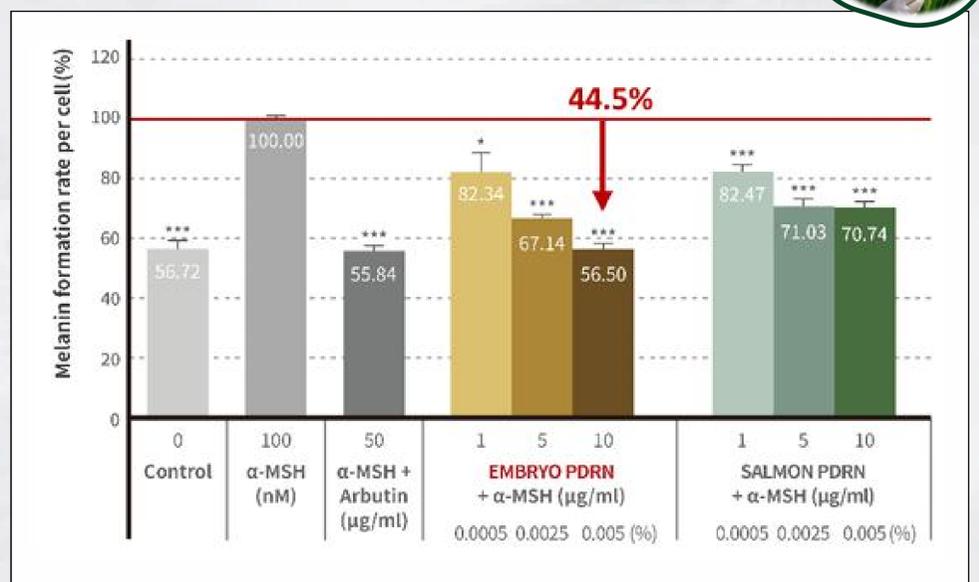
- This Helps in Anti-Inflammatory effect
- Also Enhances Skin Brightening
- Enhances Collagen Synthesis / Skin Regeneration thus has Anti Ageing Effect

Inhibition of Melansome Transfer



Pichchapa L., Warintorn R., Natural Melanogenesis Inhibitor, Antioxidant, and collagen Biosynthesis stimulator of phytochemicals in Rice bran..., Plants(Base) 2023 Feb; 12(4):970

Melanin Formation



Min young Um, Hyejin Yan, Rice bran extract supplement improves sleep efficiency and sleep onset in adults with sleep disturbance..., Scientific reports, (2019) 9:12339

PACKAGING/ STORAGE/SHELF LIFE	Packaging : Packed in 500gm Thermo insulated SS Bottles, Light shaking before use is recommended	Storage : To be stored at 28°C, keep the container closed, once opened it cannot be restored	Shelf Life : Shelf Life 2 Years from the date of manufacturing.
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MUSA-PIEL-PLATANO™ – PDRN(BANANA PEEL PDRN)

Poly Deoxyribonucleotides – Banana Peel PDRN

Banana Peel PDRN™ refers to a skincare ingredient, PDRN (polydeoxyribonucleotide) that is derived from Banana Peel. This plant-based version of PDRN is used in products like serums and masks to support skin regeneration, improve firmness, reduce fine lines/ Pores and boost elasticity, with some formulations also including ingredients like niacinamide and propolis extract to enhance these benefits.

Product applications:

It's a key ingredient in new skincare products like lip plumping masks, all-in-one serums, and skin-correcting treatments.

Combined ingredients:

Products often combine Banana PDRN with other beneficial ingredients to achieve synergistic effects, such as

Niacinamide:

For brightening and evening out skin tone.

Manuka honey:

To support skin recovery and moisture.

Propolis extract:

For strengthening the skin barrier and locking in moisture.

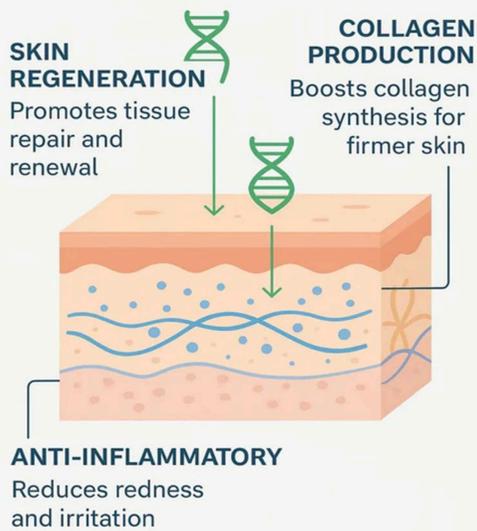
Surprisingly, we share 50% of our DNA with one of our most popular fruits, bananas

This stimulates skin regeneration and provides:

1. Skin regeneration – promotes tissue repair and renewal
2. Collagen production – boosts collagen synthesis for firmer skin
3. Anti-Inflammatory Effect– Reduces redness and irritation

HOW PDRN WORKS

Polydeoxyribonucleotide (PDRN) stimulates skin regeneration and offers various benefits.

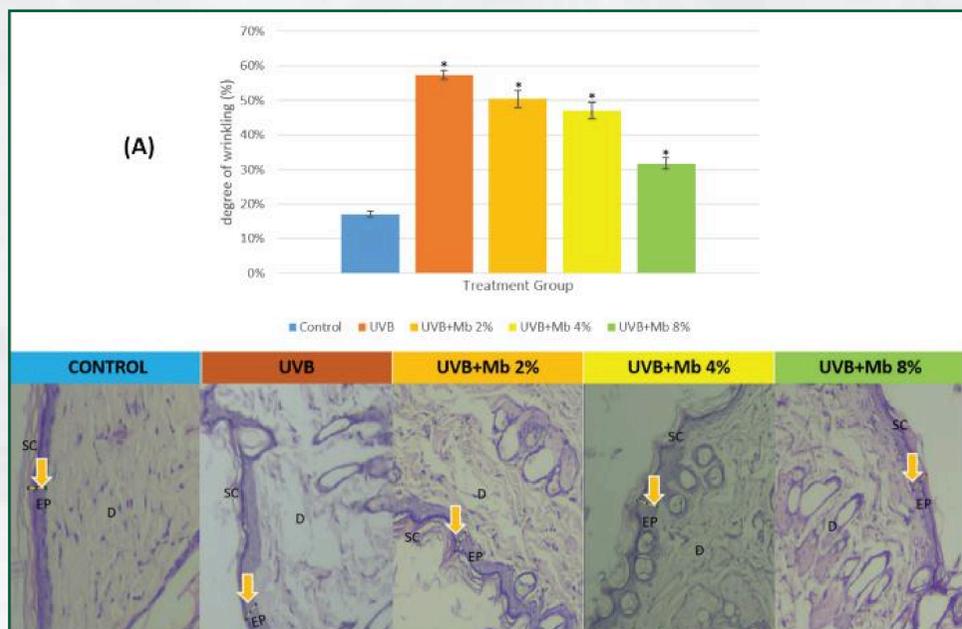


PRODUCT SPECIFICATION

INCI Name	Sodium DNA and Water and 1,2 Hexanediol and Butylene Alcohol and Ethylhexylglycerine
Appearance	Milky, opaque Liquid Suspension
DNA Content	4,500 mg/kg to 100,000 mg/kg, i.e., Min. 0.45% Conc. Product to 10% Concentration Product.
DNA Purity (UV Absorbance – 260/280)	1.70 Ratio of Absorbance (Purity 90–95%)
Recommended Dosage	0.5 – 1.5%

Helixion Biosciences has pioneered the PDRN technology where the specific focus has been in developing PDRN that has Rice Embryo/Bran as base & Banana Peel as base as only both have certain % of DNA that matches with Human DNA in the Vegan Segment – Rice ~25–30% & Banana ~50–55%. With this as a base infused with Rose / Cica / Green Coffee / Ashwagandha / Microbiome (like Lactobacillus or Bifidobacterium), Gensing & Keratin PDRN, where the specific blends of these is being worked out by our Scientists to cater both the Skin Care & Hair Care segments.

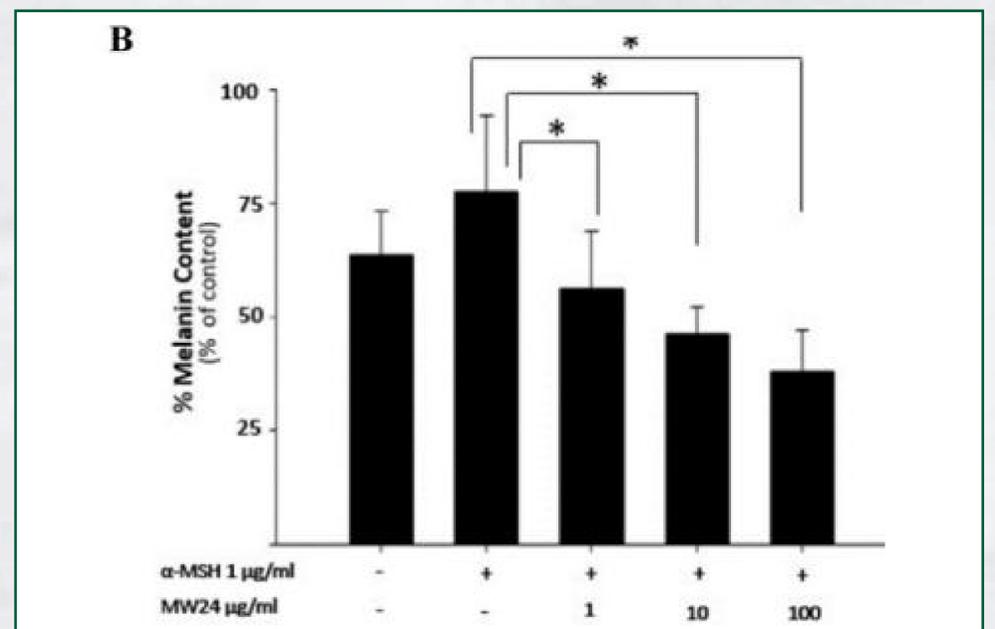
Banana Peel Ext - Impact on Wrinkle Reduction/Skin Tightening



Wrinkle formation on the skin exposed to UVB (red arrow) & the Dose based reduction of the Wrinkle using different % of Banana Peel Ext.

Scientific Reference: OVJ, (2024), Vol. 14(8): 1990–1998, DOI: 10.5455/OVJ.2024.v14.i8.28

Banana Peel Ext - effect on Melanin Content (Reducing Hyperpigmentation).



Graph Shows, Banana Peel extracts Shows inhibition of melanogenesis process through p38 signaling pathway in melanoma cells by inhibiting Melanocyte Stimulating Hormone production in B16F10 cells. (mean±SD, n=7) * P < 0.01.

Scientific Reference: Int. J. Med. Sci. 2019, Vol. 16, 2019; 16(4): 602–606. doi: 10.7150/ijms.32137

PACKAGING/ STORAGE/SHELF LIFE

Packaging :

Packed in 500gm Thermo insulated SS Bottles, Light shaking before use is recommended

Storage :

To be stored at 28°C, keep the container closed, once opened it cannot be restored

Shelf Life :

Shelf Life 2 Years from the date of manufacturing.

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HYDROLYZED PROTEINS (NANO-PEPTIDES)

For Personal Care Formulations



Indian Subcontinent's First Natural "Keratin Nano-Peptides (Enzyme Hydrolyzed)" which is tested & certified "Immunologically & Allergenicity" safe by CENTRAL DRUG RESEARCH INSTITUTE (CDRI) Lucknow (India's Nodal Body on Pharmaceuticals & Pharmacokinetics Research) & also declared Cytotoxicity Safe by SENZAZEN, SWEDEN

Benefits of Nano-Peptides:

High Biocompatibility/ High Biological Activity & Enhanced Bio-functionality

KERANPEP™ - WSL

**HYDROLYZED KERATIN
NANO-PEPTIDES -
WATER SOLUBLE- LIQUID**

Nano-Peptides -Molecular Weight (Range)	0.5 - 30KDA
Solubility	Soluble in water
Concentration of Nano peptides	Min 25%
Recommended Dosage	1-2%
Application	Hair Care: Shampoo/ Conditioner/Hair Balms/ Hair pomades & Hair colors. Application can still be far wider like as Hair Mist etc.

KERANPEP™ - WSP

**HYDROLYZED KERATIN
NANO-PEPTIDES -
POWDER FORM**

Nano-Peptides -Molecular Weight (Range)	0.5-30KDA
Solubility	Soluble in water
Concentration of Nano peptides	Min 80%
Recommended Dosage	1-2%
Application	Hair Care: Shampoo/ Conditioner/Hair Balms/ Hair pomades & Hair colors. Application can still be far wider like as Hair Mist etc.

KERANPEP™ - OSL

**HYDROLYZED KERATIN
NANO-PEPTIDES - OIL
SOLUBLE**

Nano-Peptides -Molecular Weight (Range)	0.5 - 30KDA
Solubility	Soluble in Liquid Paraffin & other Veg /Herbal Oils.
Concentration of Nano peptides	Min 15%
Recommended Dosage	7-13% <small>(Active Keratin Nano peptides range - 1 to 2%)</small>
Application	Hair Care: Oil Shampoo/ Hair Serum/ Hair Oil, Medicated Oils, Beard Oils etc. Application can still be far wider like as Hair Mist etc.

Functional Benefits with Mechanism of Action (MOA) : Hair Care - MOA:

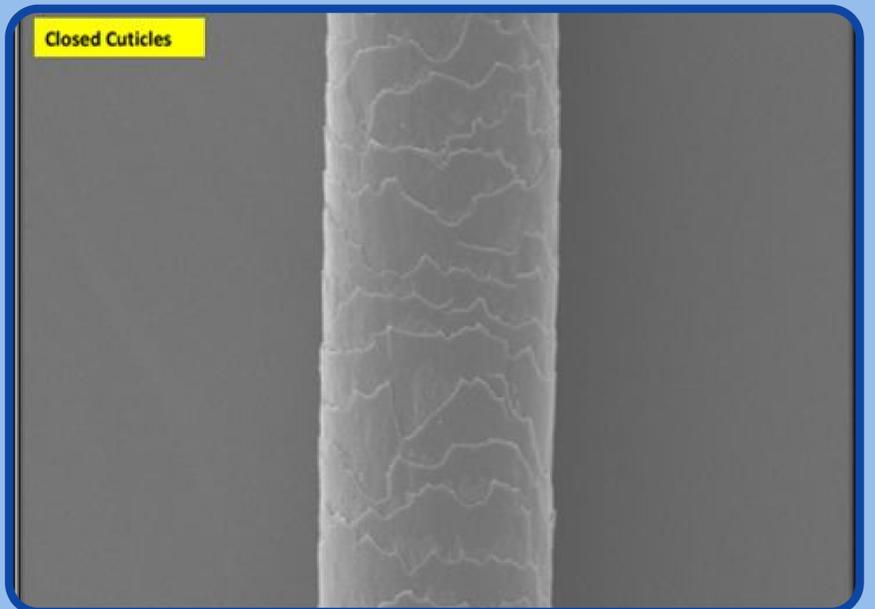
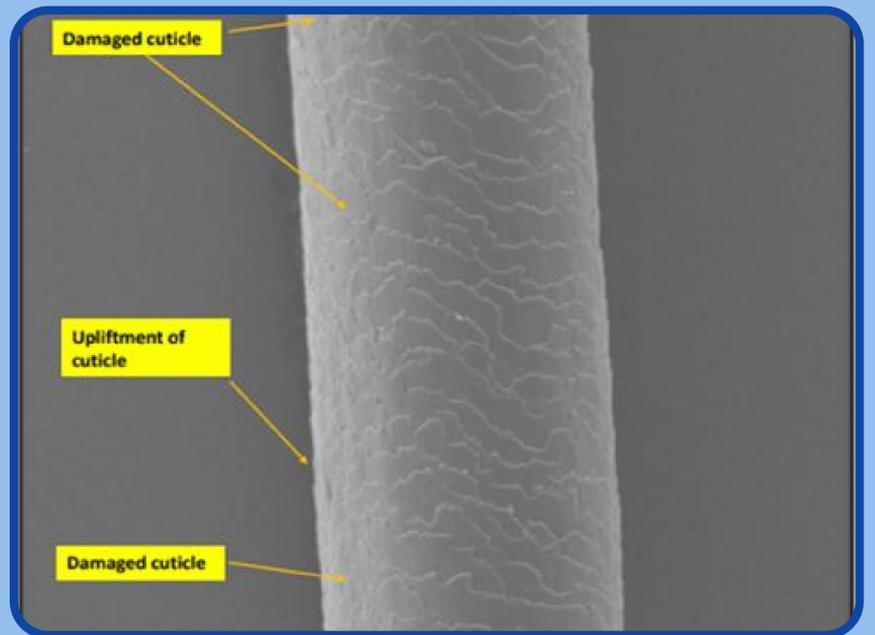
Due to the low molecular weight and the small size, the hydrolyzed keratin Nano Peptides go beyond the cuticle, penetrate the hair shaft and reduce damage. When the broken-down protein fills these microscopic gaps, hair gets the strength to minimize damage from chemical treatments, heat styling, mechanical manipulation and the sun.

Functional Benefits : Significant improvement in Detangling of hair strands hence better combability & manageability. Improvement in Hair Bounce for better aesthetics. Reduction in hair fall (due to hair breakage) Significant reduction in Split ends.

Immunogenicity & Allergenicity Test : Certified safe from Central Drug Research Institute, Lucknow & Also Certified safe on cytotoxicity Parameters by SENZA GEN - SWEDEN



SEM images showing condition of hair strand Post 10 washes :



CLINICAL RESULTS

Improvement Post 10 washes against Untreated: Core Claims

Parameters	Improvement against Untreated
Detangling	2.56 fold
Combability	2.56 fold
Bounce	2.5 fold
Hair Breakage	2.0 fold
Split Ends	1.6 fold
SEM (Scan Electron Microscopy)	Cuticles were found to be closed and intact after 10 treatment wash cycles whereas Cuticles remained slightly opened and damaged after 10 washes in Untreated

Improvement in other Parameters:

Parameters	Improvement (in %) from TO
Static (Frizz)	> 35 %
Shine	> 40 %
Softness	> 40 %
Smoothness	> 30 %
Tensile strength	> 13 %

(Benefits of Nano-Peptides: High biocompatibility, elevated biological activity, and enhanced bio-functionality.)



ORYJUVIN™-WSL



HYDROLYZED RICE PROTEIN NANOPEPTIDES-WATER SOLUBLE LIQUID

Dosage

ORYJUVIN™-WSL Can be added to formulas as is, add to water-phase of formula. **Recommended use level: 2-10%.**

ORYJUVIN™-WSL is a rice protein nanopeptides in a water soluble liquid form which is enzyme hydrolyzed. Due to its low molecular weight and the small size of the hydrolyzed Rice NanoPeptides, this has an excellent Bio-Absorption/ Penetration property. It is completely natural and has exceptional benefits for a wide range of personal care applications.

Applications

All kinds of Personal Care products like hair care including shampoos, hair conditioners, hair balms, hair pomades, hair colors and also skin care products including lotions and creams & Nail Care as well.

Key Benefits of Hydrolyzed Rice protein and peptide

Hair Care

- It's a natural alternative to traditional volumizing agents, which helps improve hair manageability, shine and volume.
- It is also an effective blend for strengthening, detangling, shineenhancing and smoothing of hair

Skin Care

- Strong antioxidant, anti- hyaluronidase, and ant-tyrosinase activities.
- The peptides in rice hydrolysate help the protective barrier of the skin, helping the skin stay hydrated and healthy.
- Beneficial for skin health by increasing collagen synthesis.
- Helps in reduction of the appearance of fine lines and wrinkles on the skin. Works wonder for under eye area.

KEY AMINO ACID PROFILE

% CONTENT

Cysteine	0.13-3.42
Methionine	0.65-3.49
Lysine	2.2-6.24
Glycine	4.21-5.98
Arginine	2.00-5.30

PHYSICAL PARAMETERS

Appearance	Clear Brown Liquid
Odour	No unpleasant odour
Protein % (In the form of Nano-Peptides)	Minimum 15 % Nano-Peptide Actives.
Water Insoluble Matter (%)	No visible impurities.
Bio-Peptides -Molecular Weight (Range)	Up To 42KDA
pH	7 to 8
Solubility Index	Soluble in water

(Benefits of Nano-Peptides: High biocompatibility, elevated biological activity, and enhanced bio-functionality.)



FABSOY™-WSL



HYDROLYZED SOYA PROTEIN NANOPEPTIDES-WATER SOLUBLE LIQUID

Dosage

FABSOY™-WSL Can be added to formulas as is, add to water-phase of formula. **Recommended use level: 4-5%.**

Applications

All kinds of Personal Care products like hair care including shampoos, hair conditioners, hair balms, hair pomades, hair colors and also skin care products including lotions and creams & Nail Care as well.

FABSOY™-WSL is a Soy protein nanopeptides in a water soluble liquid form which is enzyme hydrolyzed. Due to its low molecular weight and the small size of the hydrolyzed Soy Nano Peptides, this has an excellent Bio-Absorption/Penetration property. It is completely natural and has exceptional benefits for a wide range of personal care applications.

Key Benefits of Hydrolyzed Rice protein and peptide

Hair Care

- It's a natural alternative to traditional volumizing agents, which helps improve hair manageability, shine and volume.
- It is also an effective blend for strengthening, detangling, shine, enhancing and smoothing of hair

Skin Care

- Soya Amino Acids result when soy protein is completely enzyme hydrolyzed .
- When used in skin care products it increases the ability of the skin to hold moisture and provides a smoothing effect for minimizing roughness and wrinkles.
- Soy is an awesome source of Isoflavones. Protect the skin via antioxidants, Reduce inflammation Build collagen, Promote cellular repair & Smooth fine lines

KEY AMINO ACIDE PROFILE

% CONTENT

KEY AMINO ACIDE PROFILE	% CONTENT
Methionine	0.67-0.90
Phenylalaine	2.6-3.5
Threonine	2.14-3.4
Tryptophan	0.72-1.3
Tyrosin	1.86-2.5

PHYSICAL PARAMETERS

Appearance	Clear Brown Liquid
Odour	No unpleasant odour
Protein % (In the form of Nano-Peptides)	Minimum 15 %
Water Insoluble Matter (%)	No visible impurities.
Bio-Peptides -Molecular Weight (Range)	Up To 42KDA
pH	7 to 8
Solubility Index	Soluble in water

(Benefits of Nano-Peptides: High biocompatibility, elevated biological activity, and enhanced bio-functionality.)



RICSOY™-WSL



HYDROLYZED RICE+SOY PROTEIN NANOPEPTIDE CONJUGATE WATER SOLUBLE

Dosage

Can be added to formulas as is, add to water-phase of formula.

Recommended use level: 4-5%.

Store under Ambient Temperature preferably Cool /Dry place away from heat/Sunlight. For external use only.

Applications

All kinds of Personal Care products like hair care including shampoos, hair conditioners, hair balms, hair pomades, hair colors and also skin care products including Toners, lotions and creams & Nail Care as well.

Key Benefits of Hydrolyzed Soya Nano-Peptides

Hair Care

- Soya & Rice Nano-peptide conjugate with it's excellent Bio-Absorption property, helps in increasing hair's moisture-binding properties, while specifically improving tensile strength and mitigating the damage that can be wrought by bleaching, perming and hot combing.

Skin Care

- Nanopeptides present in Soy-Rice ferment liquid which is a Conjugate botanical active complex, has been effective against appearance of dark circles & puffiness around the eyes.
- When used in skin care products it increases the ability of the skin to hold moisture and provides a smoothing effect for minimizing roughness and wrinkles.

KEY AMINO ACIDE PROFILE

% CONTENT

Cysteine

0.51-2.86

Histidine

1.27-2.3

Isoleucine

2.4-3.2

Phenylalanine

2.6-3.5

Tyrosine

1.60-5.10

PHYSICAL PARAMETERS

Appearance
Odour

Clear Brown Liquid
No unpleasant odour

Protein % (In the form of Nano-Peptides)

Minimum 15 %

Water Insoluble Matter (%)

No visible impurities.

Bio-Peptides -Molecular Weight (Range)

Up To 42KDA

pH

7 to 8

Solubility Index

Soluble in water

ORYJUWIN - OSL * FABSOY-OSL * RICOSOY-OSL

HYDROLYZED RICE PROTEIN NANO PEPTIDES- OIL SOLUBLE LIQUID FORM

HYDROLYZED SOYA PROTEIN NANOPEPTIDES-OIL SOLUBLE LIQUID

HYDROLYZED RICE+SOYA PROTEIN NANOPEPTIDE CONJUGATE-OIL SOLUBLE LIQUID

Oil-soluble hydrolyzed rice, soya, and rice-soya protein nanopeptides are produced using HELIXION's patent-pending "Water Phase Acylation Technology." Helixion Biosciences is one of the world's pioneers in developing oil-soluble plant-based nanopeptides, offering our valued customers the flexibility to incorporate plant-based peptides into both water-based and oil-based products.

Mechanism of Action of Nano-Peptides

Nano-peptides consist of extremely short chains of amino acids.

Helixion Biosciences Plant based Nano-Peptides is a Complex of Nano Peptides with a Molecular weight Ranging from 3 KDA TO 42 KDA.

Our skin can absorb Nano-Peptides easier & Faster than Bigger chain Peptides & protein because the molecules are much smaller(Nano) in size.

To be effective peptides need to penetrate the skin. Peptides are known to help provide many skin antioxidant benefits.

Other than the Specific functional benefits as mentioned in Technical Data sheet of the water soluble version of these similar Nano peptides, Oil soluble variant of these plant based Nano Peptides which is specifically developed for the Oil Base formulations for Hair and Skin care has certain way of action leading to certain benefits shared here :

SKIN CARE USING OIL SOLUBLE PLANT BASE NANOPEPTIDES

Peptides are found in every tissue and send signals to produce more collagen. Collagen is what is found in the skin. Collagen provides firmness and plumpness to the skin and helps slow the process of aging.

Other than specific use as mentioned in the technical data sheet of the water soluble plant based nanopeptide version , It's use in OIL BASE PRODUCTS for Skin care Can improve : **elasticity/Have antioxidant properties/ Protect against sun damage/Improve the appearance of fine lines and wrinkles/Promotes collagen production/Can help skin heal/Reduce inflammation of the skin**

HAIR CARE USING OIL SOLUBLE PLANT BASE PEPTIDES

When it comes to hair, they have the capacity for signaling the body to produce keratin, which is the structural protein of the hair matrix.They help to strengthen the hair shaft and hair strands. It's application can be in Hair Oils & Oil Base Hair Serum / Hair Mask etc.



Recommended Dosage

2-10% in Oil Base Formulations for Skin & Hair care

KEY AMINO ACIDE PROFILE	% CONTENT
Cysteine	0.51-2.86
Histidine	1.27-2.3
Isoleucine	2.4-3.2
Phenylalanine	2.6-3.5
Tyrosine	1.60-5.10



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PLANT/ PHYTONANOPEPTIDE FERMENTS

For Personal Care Formulations





AGAR-FERMENT™

HYDROLYZED MUSHROOM FERMENT



Mushrooms are a low-calorie food and pack a nutritional punch, loaded with many healthboosting vitamins, minerals, and antioxidants. Our Mushroom ferment extract has been developed using a "Patent (Pending) hydrolysis process" further enhancing it's functionally using "Nanotechnology". This is a "Button Mushroom" extract (*Agaricus bisporus*) which is a from the family of "Brown Mushrooms". They are a potent source of biotin, a B vitamin known for promoting hair growth and strength. Mushroom extracts, are even studied for accelerating the skin turnover rate and helps in repairing dermal molecular components that provide structure and elasticity to the skin. Contemporary research elucidating the biological activities of these mushrooms, specifically their antioxidant, anti-inflammatory, antimicrobial, and wound-healing capabilities

Suggested Dosage in Skin/Hair care formulation:
4-5%. The Ferment can be "Customized" based on "Botanic Nano-Active" % as per requirement).

Hair Care:

- Stops Hair Loss
- Maintains Overall Health
- Slows Down Greying

Skin Care:

- Brightens Skin
- Hydrates Skin
- Treats Acne
- Has Anti-Aging benefits.

FUNCTIONAL BENEFITS

KEY NUTRITIONAL SPECS

CONTENT RANGE

Botanic Nano-Actives
(Using Rapid Refractive Index)

Minimum 12%

Secondary Metabolites
(Data may vary subject to test conditions & product origin & growing environment/Season)

Phenolics – 100-112 ug/ml
Saponins – 140-160ug/ml
Terpenoids – 140- 160ug/ml
Flavonoids – 100-112ug/ml



ASCOPHYLLUM-FERMENT™

HYDROLYZED SEAWEED FERMENT



Seaweeds or Macroalgae or Marine Algae, are the aquatic photosynthetic organisms taxonomically characterised as algae. Since long they have been used as an alternative medicine for skin related diseases. Seaweeds have been most desirable source of research for their bioactivity and bioactive compounds like polyphenols, fucoidan, phlorotannin, carotenoids, Vitamins, minerals & certain Peptides. The Sea weed variant used here belongs to the common cold water seaweed or brown algae in the family Fucaceae. Our Seaweed ferment extract has been developed using a "Patent (Pending) hydrolysis process" further enhancing it's functionally using "Nanotechnology".

Suggested Dosage in Skin/Hair care formulation:
4-5%. The Ferment can be "Customized" based on "Botanic Nano-Active" % as per requirement.

Skin Care:

The active components from the seaweeds could be used as an Anti-photo aging, Anti-inflammatory Antiallergic, antioxidant and whitening agent for different Skin care Products. It can be used in brightening creams, under-eye cream, anti-aging cream etc.

FUNCTIONAL BENEFITS

KEY NUTRITIONAL SPECS

CONTENT RANGE

Botanic Nano-Actives
(Using Rapid Refractive Index)

Minimum 12%

Secondary Metabolites
(Data may vary subject to test conditions & product origin & growing environment/Season)

Phlorotannins-1.5-2.0%
Alginates & Fucoidans-2.0-4.5%
Phytosterols – 0.12-0.75%



CAMELLIA-FERMENT™

HYDROLYZED GREEN+BLACK TEA FERMENT



Tea Ferment Extract produced by Helixion Biosciences is from a combination of Black tea & Green Tea hydrolysis, which makes it a uniquely balanced complex of active compounds from both Black & Green tea. Active combination from both teas including their antioxidants, vitamins, caffeine (thein), and polyphenols such as epigallocatechin gallate (EGCG), has multiple personal care benefits like ability to hydrate, improve dark circles under the eye, reduce inflammation, calm reactive skin, and even helps fight acne. Due to its rich antioxidant content, tea ferment extracts are being used for other purposes, such as helps in preventing hair loss and improving hair health. Our Tea ferment extract has been developed using a "Patent (Pending) hydrolysis process" further enhancing it's functionally using "Nanotechnology"

Skin/ Hair care & Conditioning

Face masks, face cleansers, facial toners, sun lotions, toothpastes, mouthwashes, shaving creams, aftershave lotion, deodorant, shampoos, and hair detangles The anti-radical substances in tea extracts used as raw materials in cosmetology are beneficial to human skin, such as polyphenols, flavonoids, catechins, and vitamin

FUNCTIONAL BENEFITS

Suggested Dosage in Skin/Hair care formulation:

4-5%. The Ferment can be "Customized" based on "Botanic Nano-Active" % as per requirement

KEY NUTRITIONAL SPECS

CONTENT RANGE

Botanic Nano-Actives
(Using Rapid Refractive Index)

Minimum 12%

Secondary Metabolites
(Data may vary subject to test conditions & product origin & growing environment/Season)

Total Flavonoid content:
20-35mg QE/gm dry weight
Total Phenolic Content:
55-70 mg QE/gm dry weight



PHYTO-NANOPEPTIDE FERMENTS™

100% PURE PLANT BASED ENZYME HYDOLYZED PROTEIN



S.NO	TYPE OF FERMENT	PLANT SOURCE	% OF NANOPEPTIDES IN THE FERMENTED LIQUID	APPLICATION
1	ORYZE-FERMENT™	RICE	3% Min	Hair/Skin Conditioning
2	RICS-FERMENT™	RICE + SOYA	3% Min	Hair/Skin Conditioning
3	FABS-FERMENT™	SOYA	3% Min	Hair/Skin Conditioning

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POSTBIOTIC FERMENTS

For Personal Care Formulations



BIFILYZUM™

BIFIDO BACTERIUM FERMENT LYSATE



Recommended Dosage:
1%-100%.
Add below 50°C.



Bifilyzum™-a
(With Plasma /Cell Membrane)



Bifilyzum™
(After Micro-filtration, Without Plasma /Cell Membrane)

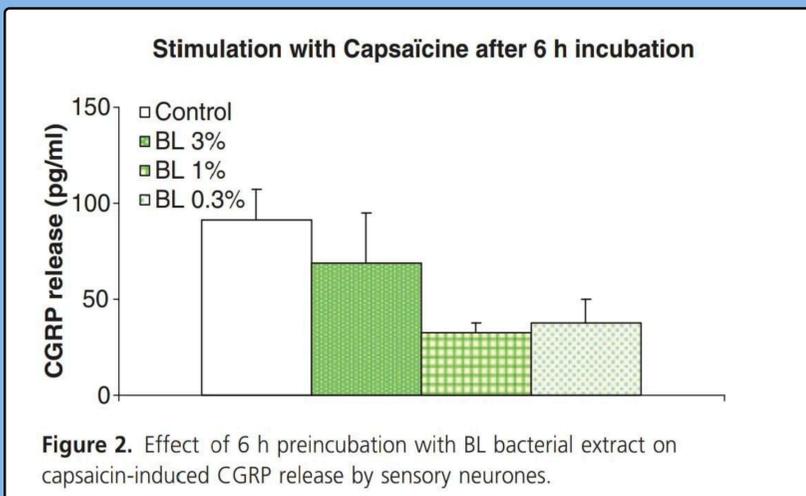
Environmental stressors like pollution, UV radiation, and harsh conditions can cause various skin issues, including pigmentation changes, acne, irritation, and allergic reactions. Keratinocytes, the main skin cells, play a crucial role in inflammation and immunity, releasing inflammatory substances when exposed to irritants. Bifida lysate is a beneficial ingredient that can help soothe inflamed skin, improve its vitality, and reduce signs of aging. It also helps regulate the immune system, promoting healthier skin and enhancing its ability to repair itself.

- Anti-aging and repairing
- Boosts cell proliferation for radiant and youthful skin
- Calming UV-induced immune suppression aids skin recovery.
- Skin Brightening and even skin toning
- Anti-inflammation and soothing
- Selenium in Bifilyzum™ protects skin.

BENEFITS

Note:

Bifilyzum™ is produced from In-House Lab grown probiotic culture where based on NABL Accredited external lab results the same has Bifidobacterium Cell count of: $7-8 \times 10^6$ cfu/gm



In vitro Tests

Bifida Ferment Lysate improves skin inflammation parameters like vasodilation, edema, mast cell degranulation, TNF- α release, and CGRP release caused by neuronal stimulation.

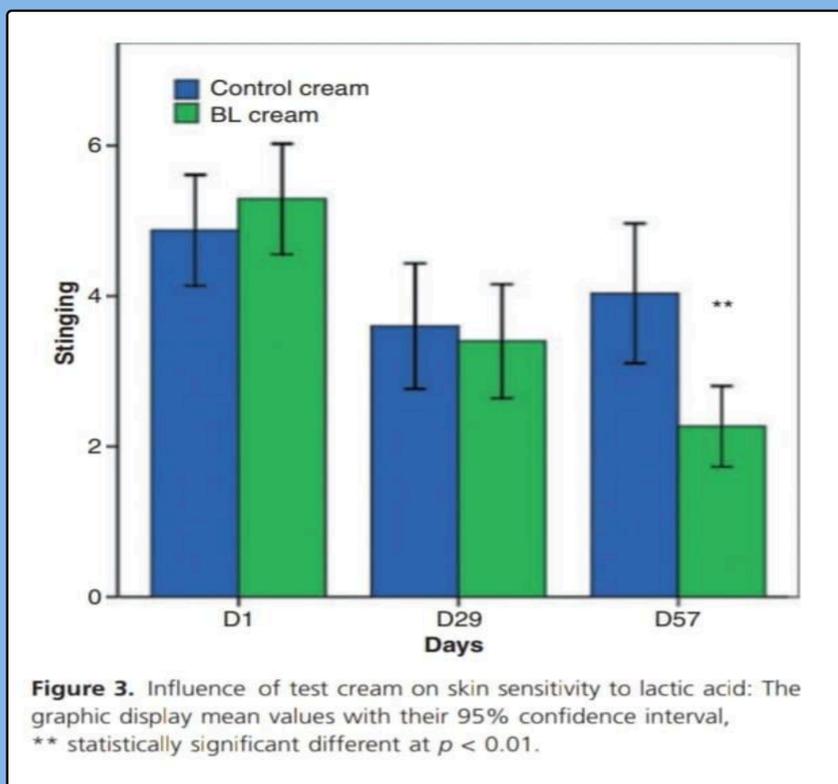
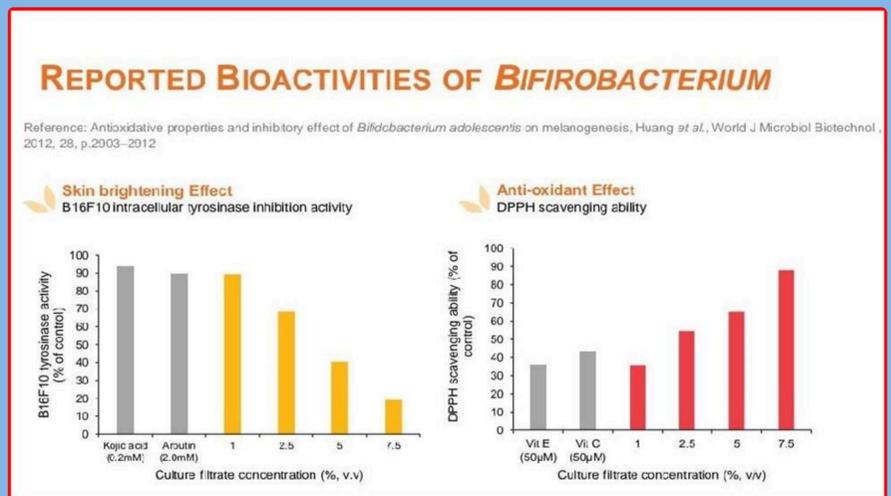


Figure 3. Influence of test cream on skin sensitivity to lactic acid: The graphic display mean values with their 95% confidence interval, ** statistically significant different at $p < 0.01$.

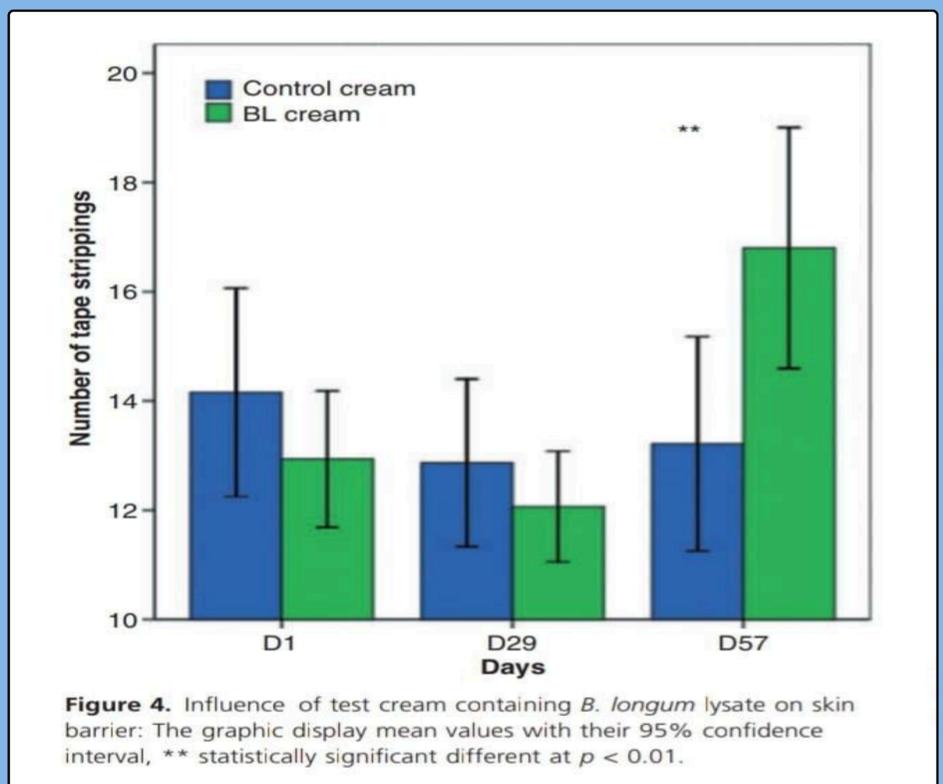


Figure 4. Influence of test cream containing *B. longum* lysate on skin barrier: The graphic display mean values with their 95% confidence interval, ** statistically significant different at $p < 0.01$.

Clinical Trials

Topical creams containing Bifida Ferment Lysate significantly reduce skin dryness and sensitivity, improving skin barrier function.

LACTOLYZUM™

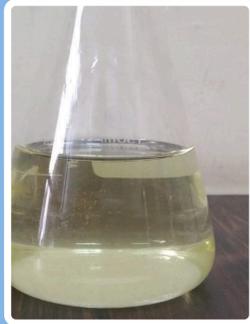
LACTOBACILLUS FERMENT LYSATE



Recommended Dosage:
1%-100% based on application



Lactolyzum™-α
(With Plasma /Cell Membrane)



Lactolyzum™
(After Micro-filtration, Without Plasma /Cell Membrane)

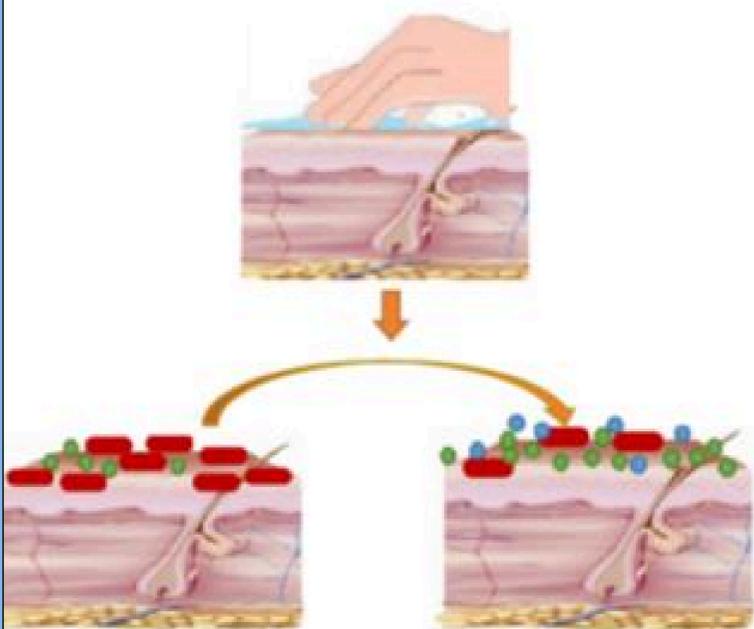
Environmental stressors like pollution, UV radiation, and harsh conditions can cause various skin issues, including pigmentation changes, acne, irritation, and allergic reactions. Keratinocytes, the main skin cells, play a crucial role in inflammation and immunity, releasing inflammatory substances when exposed to irritants. Bifida lysate is a beneficial ingredient that can help soothe inflamed skin, improve its vitality, and reduce signs of aging. It also helps regulate the immune system, promoting healthier skin and enhancing its ability to repair itself.

Note:
LACTOLYZUM™ is produced from In-House Lab grown probiotic culture, where based on NABL Accredited external lab results, the same has Lactobacillus Cell count of: $7-8 \times 10^6$ cfu/gm

BENEFITS

- Balances and protects skin microbiota against stress.
- Enhances collagen synthesis, reduces inflammation, and immunological reactions.
- Skin brightening through tyrosinase inhibition and antioxidant effects.
- Enhances skin barrier properties.
- Suitable for facial masks, creams, essences, and eye creams.
- Improves scalp condition and reduces dryness.
- Possesses wound healing and anti-inflammatory properties.
- Provides anti-pollution benefits.

Local application on the skin



•Inhibition of harmful skin microflora

●: probiotic ●: harmful bacteria
●: probiotic fermentation products

Other benefits:

- Secretion of useful metabolites
- Reduction of pH
- Barrier to harmful foreign environmental factors that are in contact with the skin (protective shield)

Reference Article:

Molecules 2023, 28, 6765. <https://doi.org/10.3390/molecules28196765>

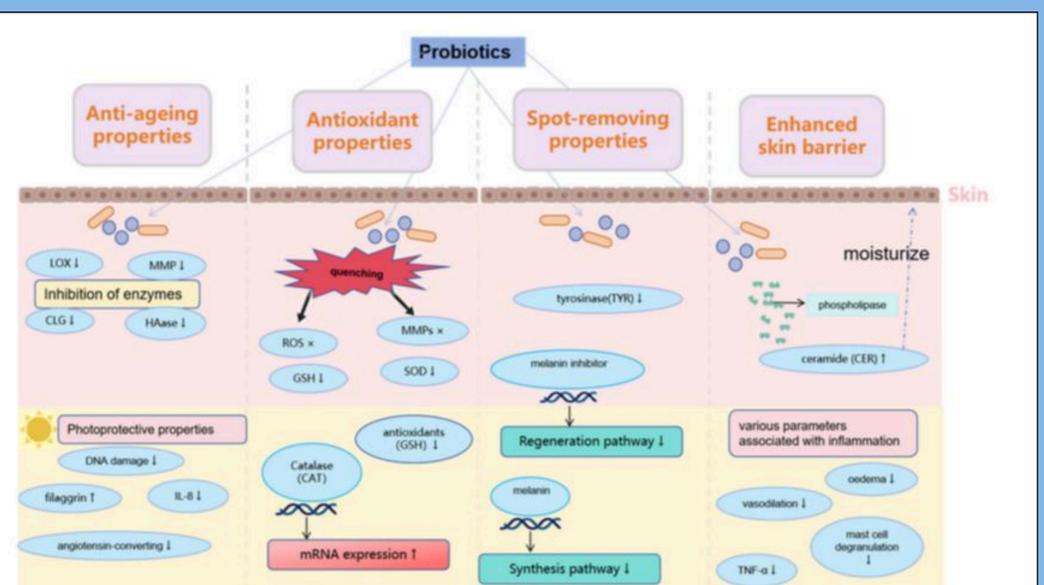


Figure 2. The significant cosmetic properties of probiotics. (↑—Increased expression, ↓—Reduced expression) The effect of probiotics on the free radicals is multidirectional and includes the direct quenching of reactive oxygen (ROS) and matrix metalloproteinases (MMPs) species; the enhancement of endogenous antioxidant enzyme production (SOD (superoxide dismutase) and glutathione); the inhibition of enzymes involved in ROS generation (glutathione S-transferase, microsomal monooxygenase, mitochondrial succinoxidase, or NADH oxidase); the protection and regeneration of antioxidant compounds (vitamin C or E).

HEALBIOM™- GMT

A Postbiotic Ferment Lysate Complex



Recommended Dosage:

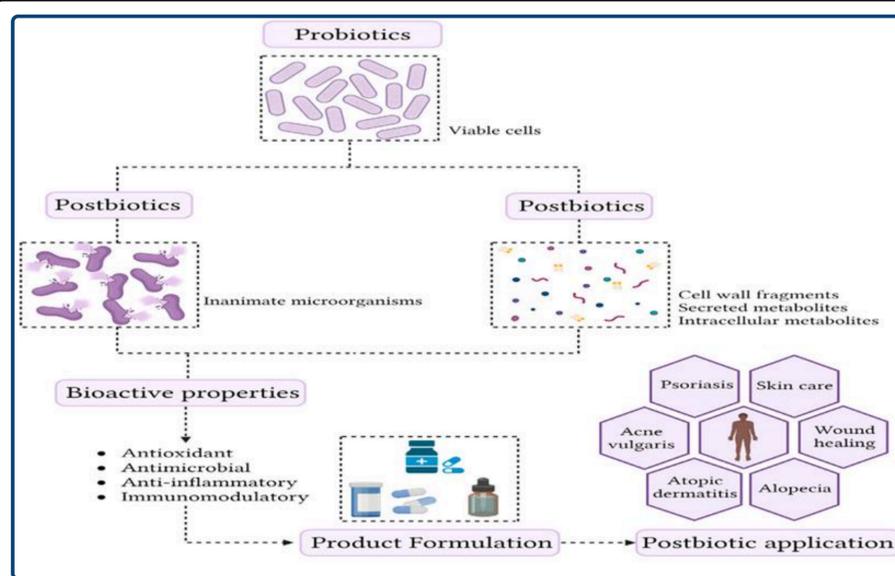
1%-100% based on the application. Add product to the formulation at Temperature less than 50 DegC.

Note:

Is produced from In-House Lab grown probiotic culture where based on NABL Accredited external lab results the same has Bifidobacterium Cell count of: $7-8 \times 10^8$

- Anti-aging and repairing
- Boosts cell proliferation for radiant and youthful skin
- Skin Brightening and even skin toning

- Skin recovery by calming down UV-induced immune suppression
- Skin Brightening and even skin toning
- Selenium in Postbiotic Complex prevents premature wrinkles by protecting skin from free radicals and UV damage.



These Postbiotic Ferment Lysate Complex are the metabolic byproducts of good bacteria, (Bifidobacterium+ Lactobacillus+ Yeast) essential in maintaining the microbiome balance, fighting against the bad bacteria, and addressing a number of skin complaints. Postbiotic Complex, protects and nourishes your skin in a variety of ways

- Helps maintain the skin barrier function while strengthening your skin's immune system
- Soothes skin inflammation aiding with redness and irritation
- Smooths the skin texture
- Some postbiotics can stimulate collagen production, helping to boost firmness, and elasticity.
- Helps skin retain moisture for optimal hydration and reduces the appearance of fine lines and wrinkles.
- Protects against external elements like pollution, blue light, stress

Analytical Data (Product Specification)

CHARACTERISTICS	VALUE
Appearance	Yellowish-White, turbid liquid
Solid Content	5 - 7 %
Lactic Acid	0.7-0.9 %
Vitamin C Content	0.8-1.0 mg/100g
Selenium Content	7-8 mcg/100g

The skin is the body's largest organ and just beneath that surface is a delicate ecosystem of microorganisms (including both good and bad bacteria) that forms the microbiome.

This invisible community plays a vital role in maintaining the skin's barrier function, a natural defense system that keeps harmful elements out while retaining moisture and essential nutrients. The key to a healthy complexion is a well-balanced skin microbiome with both good and bad bacteria.

HEALBIOM™-GMT-Postbiotic Ferment Lysate Complex is a complex blend of 3 Microbiome Lysate i.e = Bifidobacterium + Lactobacillus + Yeast. This lysate complex is One With Plasma/Cell Membrane with Extracts of Cell like Cell Proteins/ Lipids / Organelles etc, Short-chain fatty acids, bacteriocins, and organic acids are some examples of postbiotic Extracts. These compounds exhibit antimicrobial, immunomodulatory, antioxidant, and anti-inflammatory activities

G-LACTBIOM™- GFF

Galactomyces Ferment Filtrate

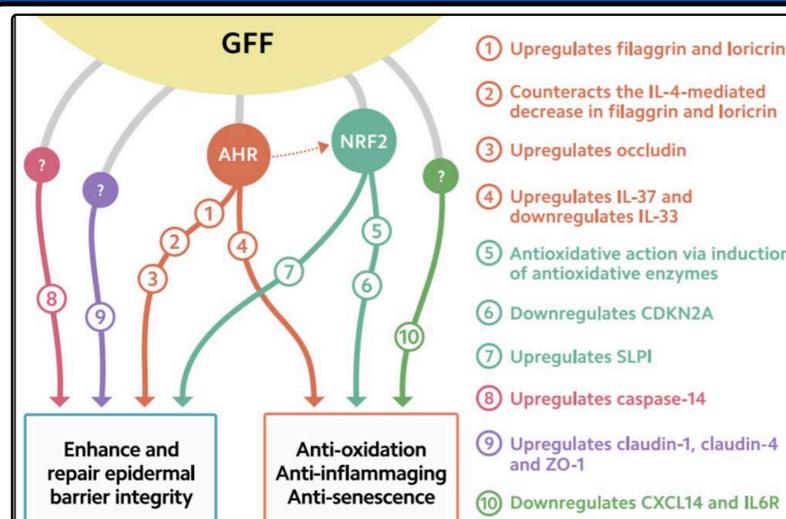


Recommended Dosage:

1%-100% based on the application. Add product to the formulation at Temperature less than 50 DegC.

Note:

Produced from In-House Lab grown probiotic culture where based on NABL Accredited external lab results the same has Microbiome count of: $8-10 \times 10^8$ CFU/GM.



This Figure Represents Biological response induced in keratinocytes treated with GFF. GFF: Galactomyces ferment filtrate. AHR: Aryl hydrocarbon receptor. NRF2: Nuclear factor erythroid 2-related factor 2. CDKN2A: cyclin-dependent kinase inhibitor 2A. CXCL14: chemokine (C-X-C motif) ligand 14. IL6R: IL-6 receptor. SLPI: secretory leukocyte peptidase inhibitor

This clear, water-like liquid is loaded with good-for-the-skin stuff and is rich in vitamins, amino acids, minerals and organic acids. . Postbiotic Complex, protects and nourishes your skin in a variety of ways:

- Has antioxidant effects and increases hyaluronan production in epidermal cells. And more hyaluronic acid in the skin means better hydrated, plumper, healthier skin.Helps maintain the skin barrier function while strengthening your skin's immune system
- might be able to help with skin pigmentation, hence might be able to help with a healthy skin barrier.
- Soothes skin inflammation aiding with redness and irritation, helps in maintaining skin texture.
- String Antioxidant property Protects against external elements like pollution, blue light, stress

Analytical Data (Product Specification)

CHARACTERISTICS	VALUE
Appearance	Yellowish-White, turbid liquid
Solid Content	5 - 7 %
Lactic Acid	0.7-0.9 %
Vitamin C Content	0.8-1.0 mg/100g
Selenium Content	7-8 mcg/100g

Skincare products play a crucial role in preventing the dry skin induced by various causes. Certain ingredients can help to improve the efficacy of skincare products. Galactomyces ferment filtrate (GFF) is such a functional ingredient. Its use originated from the empirical observation that the hands of sake brewers who deal with yeast fermentation retain a beautiful and youthful appearance. Consequently, skincare products based on GFF are widely used throughout the world.

G-LACTBIOM™-GFF (Galactomyces Ferment Filtrate), is a functional ingredient which is produced by fermentation process of Rice using Yeast which is then filtered & the Yeast cells are further lysed & stabilized. Recent studies have demonstrated that GFF activates an aryl hydrocarbon receptor (AHR) and upregulates the expression of filaggrin, a pivotal endogenous source of natural moisturizing factors, in epidermal keratinocytes. It also activates nuclear factor erythroid-2-related factor 2 (NRF2), the antioxidative master transcription factor, and exhibits potent antioxidative activity against oxidative stress induced by ultraviolet irradiation and proinflammatory cytokines, which also accelerate inflammaging.

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molecules for a better tomorrow.....

VITAMIN COMPLEX/ OIL SOLUBLE VITAMINS

For Personal Care Formulations



VITANOVA™ - BioCXH

Nano Conjugate Biotin Complex - For Hair Care

**DOSAGE
RECOMMENDATION**
3.5% of the active ingredient
VITANOVA - BioCXH



INNOVATIVE AND PATHBREAKING NANO CONJUGATE TECHNOLOGY

Transform Your Hair Care formulations with This cutting-edge innovative NanoConjugate Complex developed by Helixion Biosciences, to help Nourish, Strengthen, and Rejuvenate Hair, bringing out its natural beauty and vitality. Our Nano-Conjugation Technology using 100 % Natural Keratin Nano- Peptides, ensures that these powerful ingredient complex of **Vitamin C + Biotin+ Allantoin**, penetrate deeply and effectively into the hair shaft, maximizing their benefits and delivering visible results.

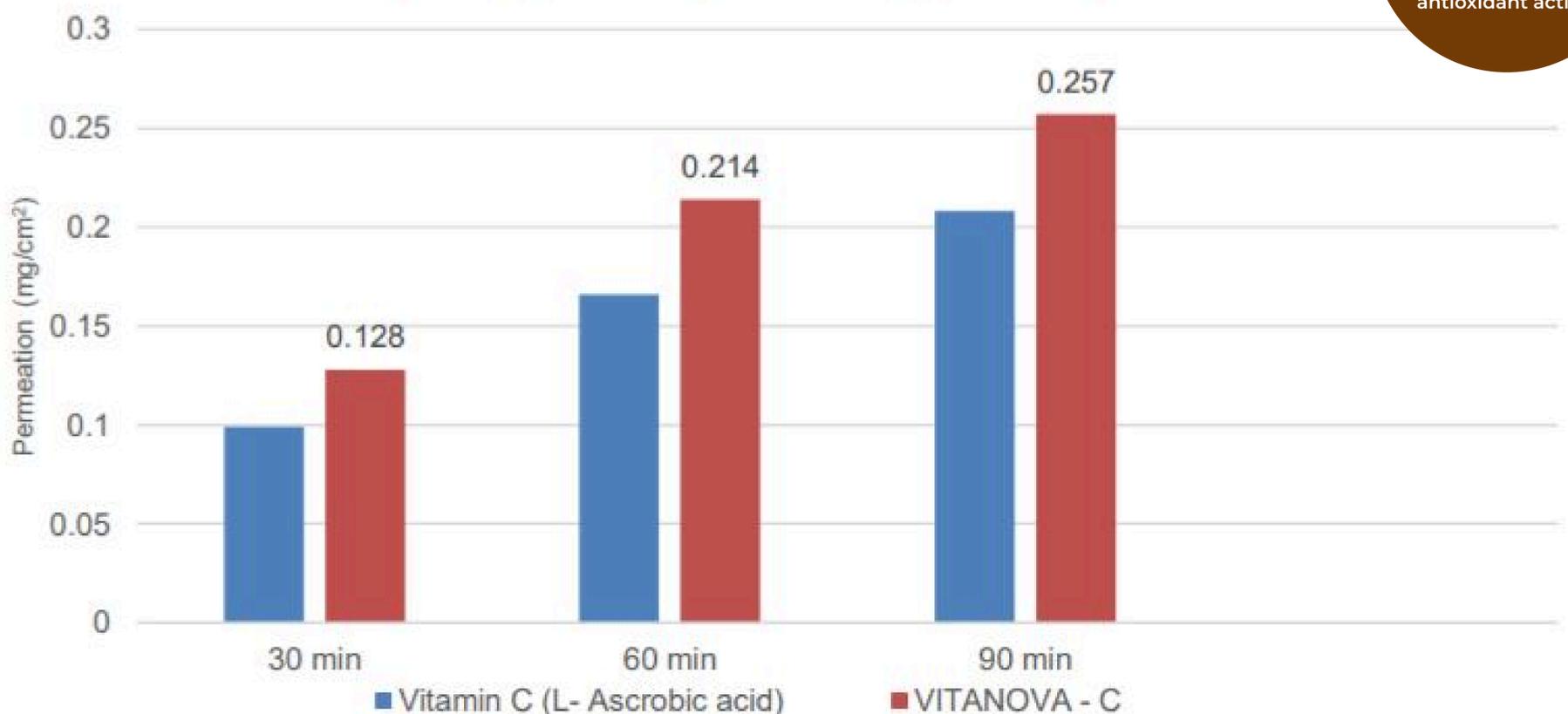
A NANO CONJUGATE BIOTIN COMPLEX

FOR HAIR CARE AND
CONDITIONING

BIOTIN + VITAMIN-C + ALLANTOIN
IN CONJUGATION WITH **KERATIN
NANO PEPTIDES.**

- Helps in scalp stimulation thus promotes hair growth
- Helps in hair fall reduction
- Reduces frizz and hair breakage
- Makes hair strong & healthy
- Soothe the dry and itchy scalp
- Helps nourishing the hair and scalp

Drug Permeation study; Comparitive study of L Ascorbic acid vs Vitanova™ - C



ANTIOXIDANT ACTIVITY

The % inhibition of DPPH (@ 1mg/ml Conc.) was 90.6% which confirms a high antioxidant activity

PERMEATION/PENETRATION STUDY – VITANOVA™ - C (Nano-Conjugated Vitamin C) VS. Control VITAMIN-C 30% (This is an exmple to show the Skin Pnenetration effectiveness of Helixion Biosciences “ Nano-Conjugation” technology with any active molecules)

VITANOVA™ - DerMX

Nano Conjugate Biotin Complex - For Skin Care

**DOSAGE
RECOMMENDATION**
3.5% of the active ingredient
VITANOVA - DerMX



INNOVATIVE AND PATHBREAKING

NANO CONJUGATE TECHNOLOGY

Transform Your Skin Care and Conditioning formulations with this cutting-edge innovative Nano- Conjugate Complex developed by Helixion Biosciences, to help Nourish, Hydrate, Soothe and Rejuvenate Skin, bringing out its natural beauty and vitality. Strong Antioxidant activity of Vitamin C with enhanced skin biosorption with Nano Conjugation of Rice + Soya Protein Nano Peptides, helps Reduces ill Effects of Free Radicals . Our Nano-Conjugation Technology using 100 % Hydrolysed Rice + Soya Protein Nano Peptides, ensures that these powerful ingredient complex of Vitamin C + Biotin+ Allantoin, penetrate deeply and effectively into the skin, maximizing their benefits and delivering visible results.

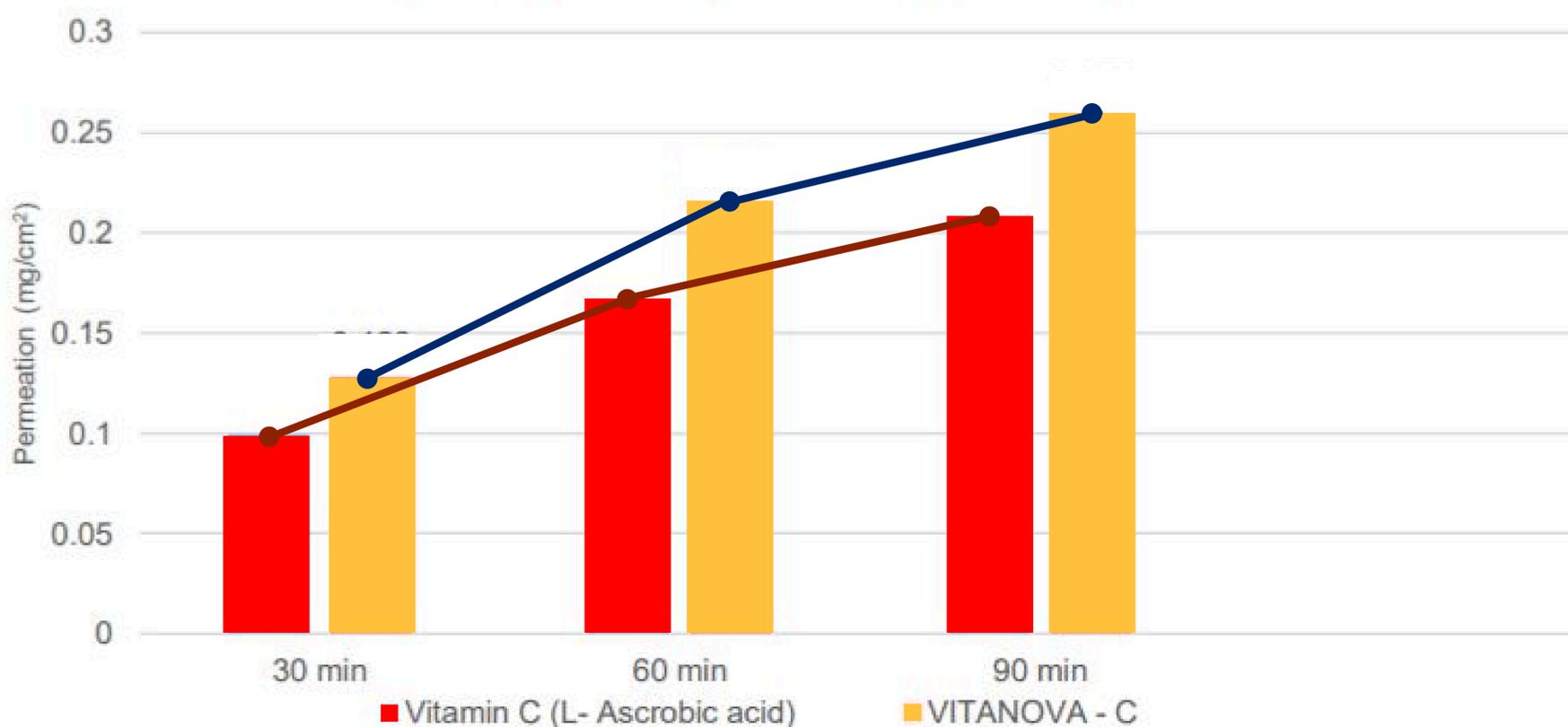
A NANO CONJUGATE VITAMIN-C + BIOTIN COMPLEX

ENRICHED WITH HYDROLYSED RICE + SOYA PEPTIDES FOR SKIN CARE AND CONDITIONING

BIOTIN + VITAMIN-C + ALLANTOIN IN CONJUGATION WITH HYDROLYSED RICE + SOYA PROTEIN NANO PEPTIDES.

- Improves skin hydration
- Helps in smoothening and improvement in skin elasticity
- Provides skin nourishment
- Strong Antioxidant activity helps Reduces ill Effects of Free Radicals
- Soothe the dry and irritated skin
- Overall promotes skin health

Drug Permeation study; Comparitive study of L Ascorbic acid vs Vitanova™ - C



PERMEATION/PENETRATION STUDY – VITANOVA™ - C (Nano-Conjugated Vitamin C) VS. Control VITAMIN-C 30% (This is an exmple to show the Skin Pnenetration effectiveness of Helixion Biosciences “ Nano-Conjugation” technology with any active molecules)

BIOVITON-OSL™

Introducing one of the world's first: Oil-Soluble Biotin



Helixion is proud to present BIOVITON-OSL™, one of the world's first Oil-Soluble Biotin innovations tailored for personal care and cosmeceutical formulations. Biotin, also known as Vitamin B7, is a key nutrient renowned for its ability to strengthen hair, promote healthy skin, and support nail health. Traditionally water-soluble, biotin's incorporation into oil-based products has always posed a challenge—until now.

With BIOVITON-OSL™, Helixion has redefined the formulation landscape by transforming biotin into an oil-soluble form. This groundbreaking advancement allows formulators to seamlessly integrate biotin into oil-based serums, creams, hair oils, and other products, unlocking a host of new benefits

INCI : Biotin, Prunus Amygdalus Oil, Iso Propyl Palmitate, PEG 40 GMS, Phenoxyethanol, Alpha Tocopherol Acetate

CAS NO.: 58-85-5/8007-69-0/ 142-91-6/ 61788-85-0/ 31566-31-1 /122-99-6 / 7695-91-2

S.No.	Parameters	Specifications	Method of Analysis
1	Appearance	Creamish White Liquid	Physical Observation
2	Odour	Characteristics	Sensory, Smell
3	Density	0.6-0.7 GM/ML	IS 4730:1994
4	Biotin Content	Min 10%	IS 7219:1973
5	Solubility	Oil Soluble	Physical Checking

S.No.	Veg Oils	Solubility@ 10% of Bioviton
1	Coconut Oil	✓
2	Almond Oil	✓
3	Castor Oil	✓
4	Jojoba Oil	✓
5	Sesame Oil	✓

BIOVITON-OSL™ FOR

Hair Care

Biotin (Vitamin B7) is an essential B-vitamin that plays a pivotal role in supporting hair growth, as well as improving skin and nail health. In hair care, biotin enhances the metabolism of scalp oils, promoting a healthier environment for hair follicles. It is widely recognized as a key ingredient in products designed to combat hair loss, including scalp treatments, leave-in sprays, shampoos, and conditioners. Scientific evidence supports its ability to improve hair growth, making it an indispensable component in advanced hair care formulations. Our innovative Oil-Soluble Biotin breaks barriers for formulators, enabling seamless incorporation into oil-phase products like scalp oils, hair oils, and oil-based serums to create next-generation products that deliver visible results for stronger, healthier, and more vibrant hair.

Application :

Scalp Oil/ Hair Oil / Serums/ Conditioners(Leave On and Rinse Off.)

BIOVITON-OSL™ FOR

Skin Care

Topical application of biotin (Vitamin B7) helps hydrate skin cells, improving overall skin tone and texture. Biotin oil is known for its ability to soothe rashes, restore dry, cracked skin, and promote a clear complexion. Research shows biotin supports skin cell regeneration and reduces signs of aging by enhancing moisture retention.

Our Oil-Soluble Biotin seamlessly integrates into massage oils and skincare products, providing scientifically-backed hydration and skin health benefits for a smoother, healthier appearance.

Application :

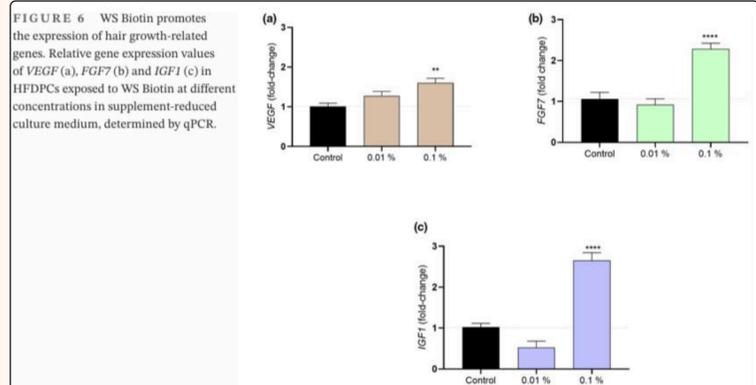
Massage Oils/ Face Oil/ Serums/ Ampules developed for Skin care routines...

REF: Int J Cosmet Sci. 2024;46:119–129.



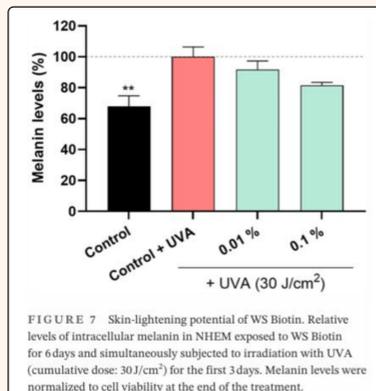
Hair Care :

Biotin Promotes the Expression of Hair Growth related genes.



Skin Care :

Skin lightening Potential of Biotin.



Recommended Dosage

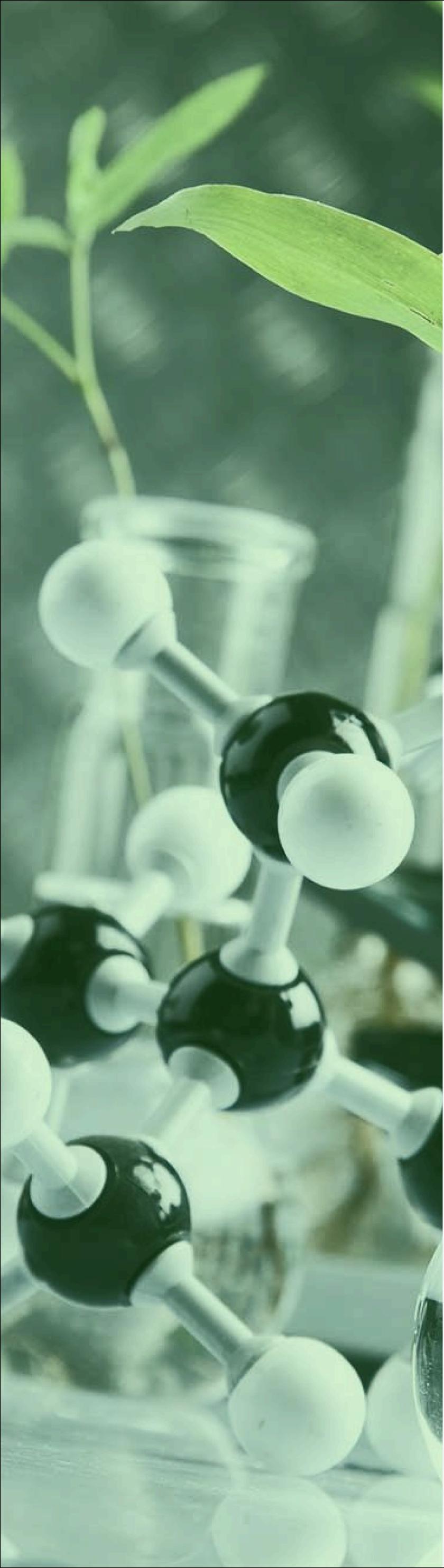
6-10%

Shelf Life

18 Months from the date of Manufacturing.

Packaging & Storage Conditions

In HDPE Cans , store in Cool Dry place under ambient conditions away from sunlight



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molecules for a better tomorrow.....

OTHER ACTIVES/ BIO-ACTIVES AND BIO-COMPLEX

For Personal Care Formulations



SELENQUA™

A safe Green , Plant Source Anti Dandruff Bio Active

SELENQUA™ is an innovative Selenium-Enriched Aqua Phase Ingredient derived through the fermentation of Black Mustard Seed Extract (Brassica Nigra) using enzymes extracted post-lysis of Bifidobacterium. This unique fermentation process is followed by advanced micro-filtration techniques, resulting in an enriched extract with dual benefits:

Selenium, a natural heavyweight molecule renowned for its efficacy in targeting dandruff.

Ferment Lysate, a rich source of micro-peptides and Bifida cell extract micro-ingredients, which enhance Selenium delivery and provide additional postbiotic benefits.

INCI Name: Bifida Ferment Lysate, Aqua, Brassica Nigra Seed Extract, Selenium (Natural), Phenoxyethanol Ethyl Hexyl Glycerine.

How SELENQUA from Natural organic Selenium source is different than regular In-organic Selenium Salts like Selenium Sulfides used in Cosmetics :

S.No.	Product	Selenium Source	Safety Aspect	Bioavailability Aspect
1.	Selenqua™	Natural/Organic - Mustard Seed	Less Toxic	Has Greater Bio Availability.
2.	Selenium Sulfide	Inorganic Salt (Chemically Processed)	More Toxic Compare to Natural Selenium	Has Less Bio Availability.

Scientific References: Inorganic Salt (Chemically Processed)

A toxicological comparison of selenium sources: does enhanced bioavailability imply increased safety concerns? RONAN POWER North American Biosciences Center, Alltech Inc., Nicholasville, KY, USA <https://cabidigitallibrary.org> by 2401:4900:6759:73d7:3df0:8ef7:145d:89b9, on 12/17/24. Subject to the CABI Digital Library Terms & Conditions, available at <https://cabidigitallibrary.org/terms-and-conditions>

TEST	SPECIFICATION	METHOD OF ANALYSIS
Appearance	Light Brown Liquid	Visual
Odour	Characteristics	Sensory (Smell Test)
Ph Value	8-10	IS 4309:1979
Density	0.9-1.1 gm/ml	IS 4730:1994
Selenium (Each 100gm Contains)	0.9 to 1 mg	ISO-21392
Heavy Metals	MMT 3 ppm	IS 3025
Total Aerobic Count	NMT 1×10 ⁴ cfu/ml	IS 5402
Yeast & Mould Count	NMT 1×10 ⁴ cfu/ml	IS 5403

Application and Benefits

While SELENQUA™ is primarily designed for advanced hair care solutions, its versatile benefits extend to skin care applications as well.

Hair Care

- Effectively combats dandruff.
- Stimulates hair follicles, promoting healthy growth.
- Enhances antioxidant production for scalp and hair health.

Skin Care

- Selenium helps Supports cell regeneration maintain skin firmness and provides essential protection.
- Prevents free radical damage, minimizing the risk of premature wrinkles.
- Shields cell membranes against UV damage, inflammation, and pigmentation.

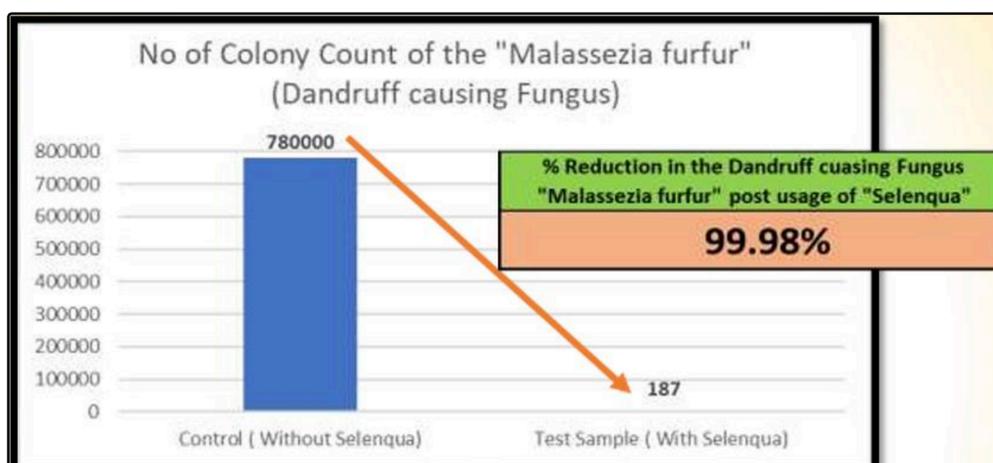
Key Benefits

- Natural Selenium Enrichment:** Delivers effective anti-dandruff properties.
- Postbiotic Benefits:** Micro-peptides and Bifida cell extracts enhance scalp health and support microbiome balance.
- Bioavailability:** Fermented lysate improves Selenium delivery and functional benefits.
- Eco-friendly Process:** Developed using sustainable fermentation and micro filtration techniques.

Shelf Life:
2 Years from the date of Manufacturing.

Storage Conditions:
In HDPE Cans , store in Cool Dry place under ambient conditions away from sunlight

Actual Anti-Dandruff Lab study report for Selenqua™



2%

Dosage used for this trial

2-3%

Recommended Dosage

Time of Action of Selenqua™ on the Fungus is observed after 24 hours

780000

Total inoculated Colony counts
(Control: Without Selenqua)

187

No. of Colonies Recovered
(Post Selenqua Usage @ 2%)



MUCINX™

SNAIL MUCIN FERMENT



This advanced ingredient is developed by fermenting Snail Secretion using Bifido Bacterium, enhancing its bioavailability and overall efficacy. The dried Snail Secretion undergoes a specialized fermentation process using proprietary biotechnology, resulting in a highly functional bioactive Fermented Snail Secretion which shall have superior skin benefits compared to regular Snail Mucin available.

INCI :

Aqua, Bifido Ferment Lysate, Snail Secretion/Mucin Filtrate, Phenoxyethanol – Ethyl Hexyl Glycerine.

CAS No.:

7732-18-5, 96507-89-0, 58704 (COSING REF NO.), 122-99-6, 70445-33-9

Parameters	Specification	Method of Analysis	APPLICATIONS
Appearance	Yellowish-Brown, liquid	Visual	Anti Aging Formulations
Solubility	100% Soluble in Aqua Phase	Physical	Anti Spots Formulation
Odour	Characteristic	Sensory (Smell Test)	Anti Acne Treatments.
pH value	4 to 6	IS 4309:1979	After Solar, After Shave and After Waxing Products
Mucin content	Not less than 1%	IS 13815:2009	Moisting Formulations
Lactic Acid	0.35-0.45 %	FL/SOP/HPLC-28	Anti stretch marks and improvement of scars formulations.
Vitamine C Content	0.4- 0.5 mg/100g	IS-5838	
Total aerobic microbial count (TAMC)	NMT 1X10 ³ cfu/ml	IS-5402 (P-1)	
Total combined Yeast & Mould Count (TYMC)	NMT 1X10 ² cfu/ml	IS-5403	

PROPERTIES OF MucinX™

MIX OF HIGH & LOW MOLECULAR WEIGHT PROTEINS:

Good for Skin Nutrition, Smoothen & Improved Skin Texture & Illuminocity

MUCOPOLYSACCHARIDES:

Provides Hydration & prevents skin for external aggression

APLHA HYDROXY ACIDS: EXFOLIATING ACTION.

Calming UV-induced immune suppression aids skin recovery.

SHELF LIFE

18 Months from the date of Manufacturing.

STORAGE CONDITIONS

Store at a cool, dark Place, avoid direct sunlight. Preferable storage Temperature 15 - 20°C. Caping should be always Air tight post usage Once opened. When standing for long time product may appear precipitate or stratification, it will resume upon stirring or shaking evenly

RECOMMENDED DOSAGE

1%-100%. Add below 50°C.

COLLCONPEP™-HKC

An Innovative Unique complex of Copper peptide & Collagen other essential Bioactives for hair care



COLCONPEP™ – Is a Unique Active Complex developed by Helixion Biosciences to give customers a unique blend of Active Complex with enhanced Bio-absorption using specific Nano-peptides for Skin & Hair care.

COLLCONPEP™- For Hair Care

Enhanced with Keratin Nano- Peptides and Selenium enriched Postbiotics

PRODUCT SPECIFICATIONS

COLLCONPEP™-HKC (FOR HAIR CARE)

COLLCONPEP™-HKC		
Test	Specification	Method of Analysis
Appearance	Greenish Liquid	Visual
Odour	Characteristic	Sensory (Smell Test)
pH Value	8-10	IS 4309:1979
Density	0.9-1.1 g/ml	IS 4730:1994
Collagen	20% max	IS 13815:2009 ISO 2173:2003 (Confirmation of Total Solids 28%)
Keratin Nano Peptides	2-3%	
Biotin	5% max	
Selenium	1-2 mcg/100gm	
Iron	1-2 mcg/100gm	
Copper Peptides	0.20% max	
Heavy Metals		
Lead	Max. 2 ppm	IS 3025
Arsenic	Max. 0.5 ppm	IS 6608/IS 2088
Mercury	Max. 0.1 ppm	IS 12041
Cadmium	Max. 0.2 ppm	IS 3025

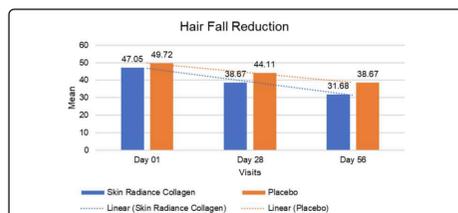
Hair Care Benefits

- A comprehensive amalgamation of proven actives for a holistic hair & scalp care to luscious and healthy locks.
- The blend helps improve hair growth and elasticity, increase the hair volume by strengthening the hair follicles and keeping them moist
- Helps hair grow by stimulating the body's production of keratin, the protein that makes up hair, and contributes to hair resilience and repair.
- Relieves itching and flaking of the scalp and removes the dry, scaly particles thus promotes healthy hair and scalp.

Scientific Study References

Collagen for Hair Care

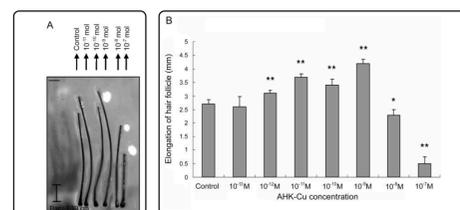
(Clinical, Cosmetic and Investigational Dermatology 2024;17 581-591)



Treatment with SRC was significantly effective in reducing hair fall after 56 days of treatment usage with a p-value <0.01. Overall, 28% hair fall reduction was seen on Day 56 from baseline in SRC group (p-value <0.01) when compared to 7.24% reduction observed in subjects who received placebo as the treatment. Moreover, the test treatment improved hair strength as compared to baseline, but the change was not significant.

Copper Peptide for Hair Care

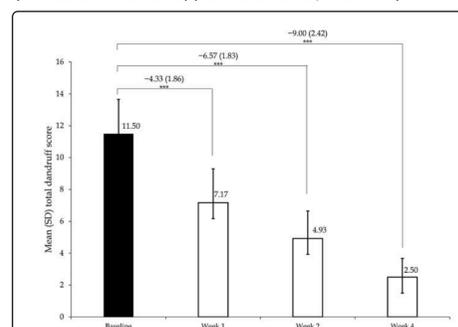
(Arch Pharm Res Vol 30, No 7, 834-839, 2007)



AHK-Cu stimulated the elongation of human hair follicles ex vivo. After 12 days of organ culture, the length of human hair follicles in the 10⁻¹²-10⁻⁹ M AHK-Cu treated group were significantly increased compared with the vehicle-treated group.

Selenium for Hair Care

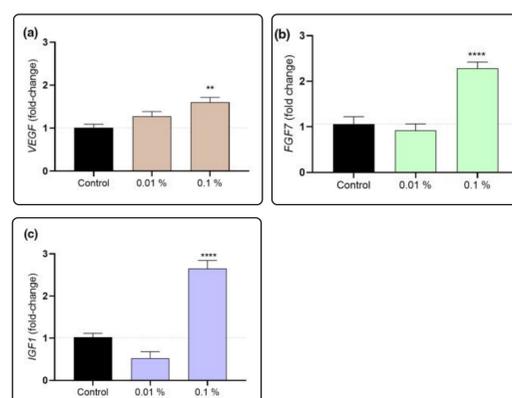
(2024 Godse et al. Cureus 16(3): e57148. DOI 10.7759/cureus.57148)



Reduction in dandruff scores
The above figure shows the mean (SD) total dandruff score at baseline and follow-up visits at weeks 1, 2, and 4. The mean (SD) score decreased by 4.33 (1.86), 6.57 (1.83), and 9.0 (2.42) from baseline to weeks 1, 2, and 4, respectively (p=0.001). Thus, there was a decrease of 37.7%, 57.1%, and 78.3% in dandruff scores at weeks 1, 2, and 4, respectively, indicating a significant reduction in dandruff with regular use of the 2.5% selenium sulfide shampoo.

Biotin for Hair Care

(Int J Cosmet Sci. 2024;46:119-129.)



Recommended Dosage:

2-5%

Shelf Life:

2 Years from the date of Manufacturing.

Storage Conditions:

In HDPE Cans, store in Cool Dry place under ambient conditions away from sunlight

COLLCONPEP™- SKC

An Innovative Unique complex of Copper peptide & Collagen with other essential Bioactives for Skin Care.



COLCONPEP™ – Is a Unique Active Complex developed by Helixion Biosciences to give customers a unique blend of Active Complex with enhanced Bio-absorption using specific Nano-peptides for Skin & Hair care.

COLLCONPEP™- For Skin Care

Enhanced with Rice+ Soy Nano- Peptides & Postbiotics

PRODUCT SPECIFICATIONS

COLLCONPEP™-SKC (FOR SKIN CARE)

COLLCONPEP™-SKC		
Test	Specification	Method of Analysis
Appearance	Greyish Liquid	Visual
Odour	Characteristic	Sensory (Smell Test)
pH Value	6-8	IS 4309:1979
Density	1.0-1.2 g/ml	IS 4730:1994
Collagen	20% max	IS 13815:2009 ISO 2173:2003 (Confirmation of Total Solids 25%)
Rice+ Soya Nano Peptides	1-2%	
Selenium	1-2 mcg/100 gm	
Pellulan	1-2%	
Biotin	3% max	
Copper Peptides	0.20% max	
Heavy Metals		
Lead	Max. 2 ppm	IS 3025
Arsenic	Max. 0.5 ppm	IS 6608/IS 2088
Mercury	Max. 0.1 ppm	IS 12041
Cadmium	Max. 0.2 ppm	IS 3025

Skin Care Benefits

- Colconpep is a unique blend of super actives that supports improving your skin's elasticity and viscoelasticity.
- The blend also helps retain skin's moisture and strengthens your skin's outer layer, protecting it from environmental stressors and pollutants
- Helps in boosting cell proliferation and strengthening skin's microbiome for radiant and youthful skin

Scientific Study References

Collagen for Skin Care

(Sparavigna, J Clin Exp Dermatol Res 2017, 8:3 DOI: 10.4172/2155-9554.1000391)

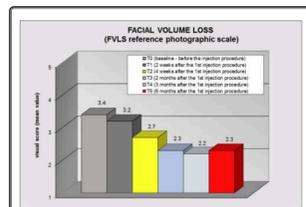


Figure 1: Variation in the FVLS "cheek volume loss" throughout the study. (Note: *P<0.05 vs T0, (n=) number of subjects on which the statistical analysis was performed (FVLS: Facial Volume Loss scale).

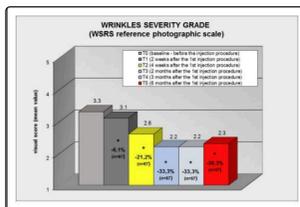
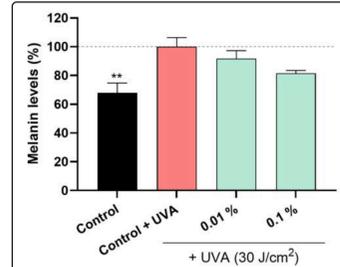


Figure 2: Variation in the WSRS "wrinkle severity" throughout the study. (Note: *P<0.05 vs T0, (n=) number of subjects on which the statistical analysis was performed, WSRS- Wrinkle Severity Rating Scale).

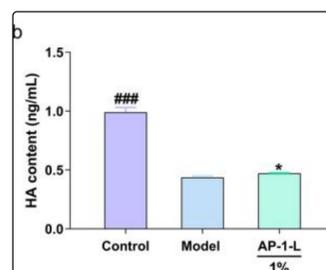
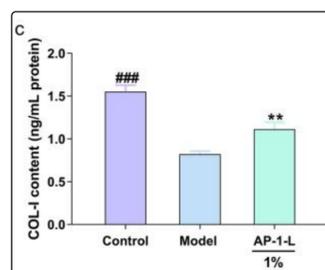
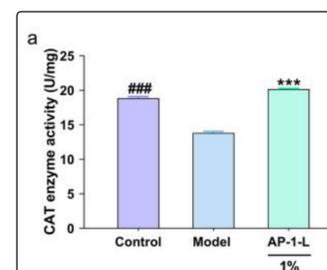
Biotin for Skin Care

(Int J Cosmet Sci. 2024;46:119-129.)



Pullulan for Skin Care

(Wang et al. Bioresources and Bioprocessing, https://doi.org/10.1186/s40643-023-00678-9)



In this study, the contents of CAT, HA and COL-1 in cells were detected by ELISA. As shown in Fig. 3a, after 7 J/cm² UVA radiation, the CAT content in the cells was significantly lower than that in the blank group (P<0.001), indicated that CAT activity was inhibited by UVA radiation. When AP-1-L was added and then UVA radiation was applied, the CAT content in the cells was significantly higher than that in the model group (P<0.001). It can be seen that AP-1-L has better antioxidant activity. As shown in Fig. 3b, the HA content in HSF Fig. 1 Effects of AP-1-L on HSF and HaCaT cell viability: a effects of different concentrations of AP-1-L on HSF cell viability; b effects of different concentrations of AP-1-L on HaCaT cell viability Wang et al. Bioresources and Bioprocessing (2023) 10:55 Page 7 of 14 cells decreased significantly after UVA irradiation, while it increased slightly in cells treated with AP-1-L. From Fig. 3c, it can be seen that the content of COL-1 was significantly reduced when UVA radiation was applied, indicating that the loss of COL-1 in the skin was caused by UVA radiation and that the content of COL-1 was restored by adding AP-1-L. It has been shown that UVA significantly reduces the ECM content, and AP-1-L is able to reduce the ECM content loss after UV irradiation. It was concluded that AP-1-L increases the CAT and HA content in HSF cells and protects organelles from oxidative damage.

Recommended Dosage:

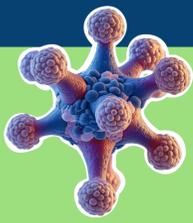
2-5%

Shelf Life:

2 Years from the date of Manufacturing.

Storage Conditions:

In HDPE Cans , store in Cool Dry place under ambient conditions away from sunlight



AMINOBLITZ™-TDS



Amino Acid Blend for Hair & Skin Care



AMINOBLITZ is a biotech ingredient with 10% amino acids that boosts collagen, elastin, and filaggrin for firmer, more elastic skin. Glycine, serine, and proline enhance hydration by supporting natural moisturizing factors and strengthening the skin barrier.

AMINOBLITZ supports scalp health and hair vitality by boosting keratin synthesis, balancing pH, reducing sebum, and protecting against oxidative stress. Enriched with key amino acids, it enhances moisture, reduces frizz, and improves manageability—promoting stronger, shinier, and healthier hair from root to tip.

TECHNICAL INFORMATION

Appearance	Clear Brown Liquid
Odor	Characteristic
pH	7-8
Density	1.031g/ml
Total Bacterial Count	NMT 100cfu/g
Yeast & Molds	NMT 10cfu/g

PRODUCT INFORMATION

INCI NAME	COMPOSITION
WATER	89% Max
AMINO ACIDS COMPLEX	10% Max
PHENOXYETHANOL & ETHYL HEXYL GLYCERINE	1% Max

Amino Acid Profile

Amino Acids	Amino Acid (g/100ml)	Amino Acids	Amino Acid (g/100ml)
Aspartic Acid	0.718	Valine	0.486
Serine	0.452	Methionine	0.143
Glutamic Acid	1.52	Lysine	0.1229
Glycine	0.656	Isoleucine	0.344
Histidine	0.118	Leucine	0.6077
Arginine	0.181	Phenylalanine	0.41
Threonine	0.761		
Alanine	0.482		
Proline	0.6635		
Cysteine+Cystine	0.225		
Tyrosine	0.333		



Processing & Dosage

The recommended dosage of AMINOBLITZ™ (AMINO ACID COMPLEX) is 1.0% ~ 5.0%, is a water-soluble active ingredient. In order not to disturb the structure and conformation of the actives, it is recommended to incorporate it into formula at the last phase of the formulation at about 40 °C.

Storage & Shelf Life

AMINOBLITZ™ (AMINO ACID COMPLEX) should be stored at room temperature in a tightly closed and lightproof package. If stored in these appropriate conditions the shelf life is at least 24 months. Once the original packing is opened, it is highly recommended to use at once.

Safety Information

Amino acid supplements are used to enhance protein intake in the body and to assist in recovery of muscle tissue after exercise. Also, with its properties, AMINOBLITZ™ (AMINO ACID COMPLEX) can be used in all kind of skin care cosmetics for moisturizing and anti-aging, and in all kinds of formulations for hair care and body care.

ORYMLK™

Rice Milk with Nanopeptides



ORYMLK™ is a Rice milk (milky preparation) by boiling brown rice with a large volume of water, blending and filtering. Its origins can be traced back to ancient Asian civilizations like China, Japan, Korea & India, where rice water – the milky substance leftover from rinsing or soaking or Cooking rice – was traditionally used to cleanse and soften the skin. This is rich in rice starch, Rice Fat, proteins rich in certain essential Amino Acids & certain Minerals / Vitamins. ORYMLK is Enhanced with Hydrolyzed Rice Protein Nano-Peptides & Coconut Milk.

BENEFITS OF RICE MILK IN SKIN CARE

Nourishes and moisturizes the skin/ Brightens and evens complexion. / help protect the skin from free radicals. It also helps to minimize the appearance of fine lines, blemishes and wrinkles.

APPLICATION & RECOMMENDED DOSAGE

It is a natural product derived from *Oryza Sativa*. Acts as an anti-irritant, emollient and antioxidant. It is used in surfactant water-based products, emulsions and aqueous-alcoholic products. **Recommended dosage is 2- 15%.**

ALMOMLK™

Almond Milk with Nanopeptides



ALMOMLK™ is a Almond milk (milky preparation) combining liposoluble and water-soluble fractions of the sweet almond, fruit of the sweet almond tree (*Prunus amygdalus dulcis*).

BENEFITS OF ALMOND MILK IN SKIN CARE

The Almond milk Extracted pure from Soaked/De-Skinned Almond Nuts is rich in Minerals like Selenium, Manganese, Copper & Zinc & also rich in Vitamin B Complex (along with Folate , B9) & Vitamin E this makes it a powerhouse of a combination which helps the skin to reduce the existence of early signs of ageing. Further Enrichment of Nano-Peptides also helps in even toning the skin and essential hydration of the Skin.

APPLICATION & RECOMMENDED DOSAGE

It is a natural product derived from *Prunus Amygdalus Dulcis* . Incorporating almond Milk into routine can indeed lead to a glowing complexion. **Recommended dosage is 5-10% in a formulation.**

COCOMLK™

Coconut Milk with Nanopeptides



COCOMLK™ is produced that involves grating coconut meat, mixing it with hot water, and pressing the liquid through a Fine Filter. This is rich in Coconut Carb, Fat, proteins rich in certain essential Amino Acids & certain Minerals / Vitamins. COCOMLK is further Enhanced with Hydrolyzed Protein Nano-Peptides that helps not only in enriching with Micro peptides but also these Nano Peptides helps in enhancing in Bioabsorbibility hence enhances it's desired functional benefits for Skin

BENEFITS OF COCONUT MILK IN SKIN CARE

Helps treat dry, dull, and damaged skin. It acts as a deep and nourishing moisturizer, Coconut milk thus also benefits us by clearing out blemishes that would require specialized treatment. Nourishes. Brightens and evens complexion. Also help protect the skin from free radicals

APPLICATION & RECOMMENDED DOSAGE

It is a natural product derived from *Cocos nucifera L* . It is used in water-based products, emulsions and aqueous-alcoholic products. **Recommended dosage is 5-10%..**

INCI & CAS No. of Helixion Range of Products

Products	INCI	CAS No.	Products	INCI	CAS No.
HYDROLYZED PROTEINS (NANO-PEPTIDES)			VITAMIN COMPLEX/ OIL SOLUBLE VITAMINS		
Keranpep WSP	Hydrolyzed keratin peptides, Phenoxy ethanol, Triethylene Glycol, Potassium Sorbate	69430-36-0 122-996 112-27-6, 24634-61-5	Vitanova DerMX	Hydrolysed Rice Nanopeptides, Biotin, Allantoin, Sodium Ascorbate, Phenoxyethanol, Ethyl Hexyl Glycerine, Potassium Sorbate	94350-05-7, 58-85-5, 97-59-6, 134-03-2, 122-99-6, 112-27-6, 24634-61-5
Keranpep WSL	Aqua, Hydrolysed Keratin Protein, Phenoxy ethanol, Triethylene Glycol, Potassium Sorbate	7732-18-5, 69430-36-0, 122-996, 112-27-6, 24634-61-5	Vitanova BioCXH	Hydrolysed Keratin Nanopeptides, Biotin, Allantoin, Sodium Ascorbate, Phenoxyethanol, Ethyl Hexyl Glycerine, Potassium Sorbate	69430-36-0, 58-85-5, 97-59-6, 134-03-2, 122-99-6, 112-27-6, 24634-61-5
Keranpep OSL	Hydrolyzed Keratin Iso-Propyl Myristate Iso-Propyl Palmitate	69430-36-0 110-27-0 142-91-6, 122-996,	Bioviton OSL	Prunus Amygdalus Oil (Almond Oil), Iso Propyl Palmitate, Biotin, GMS, PEG 40, Sorbitan Oleate, Polyglyceryl-3 Polyricinoleate, Phenoxyethanol, Alpha Tocopherol Acetate	8007-69-0/ 142-91-6/58-85-5/ 31566-31-1 /61788-85-0/1338-43-8/29894-35-7/ 122-99-6 / 7695-91-2
Oryjuvin WSP	Hydrolysed Rice protein, Phenoxy ethanol, Triethylene Glycol, Potassium Sorbate	94350-05-7, 122-99-6, 112-27-6, 24634-61-5	GREEN PDRN		
Oryjuvin WSL	Aqua, Hydrolysed Rice Protein, Phenoxy ethanol, Triethylene Glycol, Potassium Sorbate	7732-18-5, 94350-05-7, 122-99-6, 112-27-6, 24634-61-5	PDRN	Rice bran sodium DNA, Aqua, Butanediol, Hexanediol, ethylhexyl glycerine	9007-49-2, 7732-18-5, 107-88-0, 629-11-8, 70445-33-9
Oryjuvin OSL	Prunus Amygdalus Oil (Almond Oil), Iso Propyl Palmitate, Hydrolyzed rice protein peptides, GMS, PEG 40, lecithin, Phenoxyethanol, Alpha Tocopherol Acetate	8007-69-0/ 142-91-6/94350-05-7/ 31566-31-1 /61788-85-0/ 8002-43-5/122-99-6 / 7695-91-2	OTHER ACTIVES/ BIO-ACTIVES AND BIO COMPLEX		
Ricsoy WSP	Hydrolyzed rice protein, Hydrolysed soya proteins, Phenoxyethanol, Triethylene Glycol, Potassium Sorbate	94350-05-7, 68607-88-5, 122-99-6, 112-27-6, 24634-61-5	MucinX	Bifida Ferment Lysate, Snail Mucin, Aqua, Phenoxyethanol, ethyl hexyl glycerine, Potassium Sorbate	96507-89-0, 91053-71-3, 7732-18-5, 122-996, 629-11-8, 70445-33-9
Ricsoy WSL	Hydrolyzed rice, Hydrolysed soya proteins, Aqua, Phenoxyethanol, Triethylene Glycol, Potassium Sorbate	94350-05-7, 68607-88-5, 7732-18-5, 122-99-6, 112-27-6, 24634-61-5	Almomilk	Prunus Amygdalus Dulcis Fruit Extract, Almond oil, Soy Lecithin, Alpha Tocopherol, Hydrolysed Rice protein, Xanthan gum, Ethyl Hexyl Glycerine, Phenoxy ethanol, Potassium Sorbate	90320-37-9, 8007-69-0, 8002-43-5, 7695-91-2, 94350-05-7, 11138-66-2, 70445-33-9, 122-99-6, 24634-61-5
Ricsoy OSL	Prunus Amygdalus Oil (Almond Oil), Iso Propyl Palmitate, Hydrolyzed rice protein peptides, hydrolysed soya peptides, GMS, PEG 40, lecithin, Phenoxyethanol, Alpha Tocopherol Acetate	8007-69-0/ 142-91-6/94350-05-7, 68607-88-5/ 31566-31-1 / 61788-85-0/ 8002-43-5/122-99-6 / 7695-91-2	Orymilk	Hydrolysed Rice peptide, Rice water, coconut milk, Phenoxyethanol, ethylhexyl glycerine, Potassium sorbate	94350-05-7, 68553-81-1, 8001-31-8, 122-996, 629-11-8, 70445-33
Fabsoy WSP	Hydrolysed soya proteins, Phenoxyethanol, Triethylene Glycol, Potassium Sorbate	68607-88-5, 122-99-6, 112-27-6, 24634-61-5	Cocomilk	Hydrolysed rice peptides, coconut milk, PEG40, Xanthan Gum Phenoxyethanol, ethylhexyl glycerine, Potassium sorbate	94350-05-7, 8001-31-8, 61788-85-0, 11138-66-2, 122-996, 629-11
Fabsoy WSL	Hydrolysed soya proteins, Aqua, Phenoxyethanol, Triethylene Glycol, Potassium Sorbate	68607-88-5, 7732-18-5, 122-99-6, 112-27-6, 24634-61-5	Collconpep HRC	Hydrolysed Marine Collagen, Hydrolysed Keratin, Biotin, Selenium, Iron, Copper Peptide,	9064-67-9, 69430-36-0, 58-85-5, 7782-49-2, 7439-89-6, 49557-75-7, 122-99-6, 112-27-6, 24634-61-5
Fabsoy OSL	Prunus Amygdalus Oil (Almond Oil), Iso Propyl Palmitate, hydrolysed soya peptides, GMS, PEG 40, lecithin, Phenoxyethanol, Alpha Tocopherol Acetate	8007-69-0/ 142-91-6, 68607-88-5/ 31566-31-1 /61788-85-0/ 8002-43-5/122-99-6 / 7695-91-2	Collconpep SKC	Hydrolysed Marine Collagen, Hydrolysed Rice, Biotin, Selenium, Copper Peptide, Pullulan, Phenoxyethanol, Triethylene Glycol, Potassium Sorbate	9064-67-9, 94350-05-7, 58-85-5, 7782-49-2, 49557-75-7, 9057-02-7, 122-99-6, 112-27-6, 24634-61-5
PLANT/PHYTONANOPEPTIDE FERMENTS			Selenqua	Bifida Ferment Lysate, Brassica Nigra Seed Extract (Selenium natural), Phenoxyethanol	96507-89-0, 90064-15-6, 7782-49-2, 122-99-6
Ascophyllum Fermen	Ascophyllum Extract, Aqua, Phenoxyethanol & Potassium Sorbate	9005-32-7, 7732-18-5, 122-996, 24634-61-5			
Camellia Fermen	Camellia senses leaf extract, Aqua, Phenoxyethanol & Potassium Sorbate	84650-60-2, 7732-18-5, 122-996, 24634-61-5			
Agar Fermen	Hydrolysed mushroom extract, Aqua, Phenoxyethanol & Potassium Sorbate	7732-18-5, 122-996, 24634-61-5			
Oryze Fermen	Hydrolyzed Rice, water, Iscaguard, Potassium Sorbate	94350-05-7, 7732-18-5, 122-99-6, 24634-61-5			
Rics Fermen	Hydrolyzed Rice, Hydrolyzed soya proteins, water, Iscaguard, Potassium Sorbate	94350-05-7, 68607-88-5, 7732-18-5, 122-99-6, 24634-61-5			
Fabs Fermen	Hydrolyzed soya proteins, water, Iscaguard, Potassium Sorbate	68607-88-5, 7732-18-5, 122-99-6, 24634-61-5			
POSTBIOTIC FERMENTS LYSATES					
Healbiom GMT	Lactobacillus Ferment Lysate Bifida Ferment Lysate, Yeast Ferment Lysate, Phenoxyethanol, Ethyl Hexyl Glycerine	1686112-36-6, 9 6 5 0 7 - 8 9 - 0, 68876-77-7, 122-99-6, 70445-33-9,			
G Lactbiom GFF	Saccharomyces Ferment, Phenoxyethanol, Ethyl Hexyl Glycerine Potassium Sorbate	8013-01-2, 122-99-6, 70445-33-9, 24634-61-5			
Bifilyzum	Bifida Ferment Lysate, Phenoxyethanol, Ethyl Hexyl Glycerine Potassium Sorbate	96507-89-0, 122-99-6, 70445-33-9, 24634-61-5			
Lactolyzum	Lactobacillus Ferment Lysate, Phenoxyethanol, Ethyl Hexyl Glycerine Potassium Sorbate	1686112-36-6, 122-99-6, 70445-33-9, 24634-61			

HYDROLYZED PROTEIN (NANOPEPTIDE)

Hydrolyzed Keratin Protein Nanopeptides.

Hydration and Barrier Properties of Emulsions with the Addition of Keratin Hydrolysate Pavel Mokrejš 1,*
Jana Pavlačková 2, Dagmar Janáčková 3 and Matouš Hut'ák
Cosmetics 2018, 5, 64; doi:10.3390/cosmetics5040064/ www.mdpi.com/journal/cosmetics

Changing the shape of hair with keratin peptides
† C. F. Cruz, ‡a M. Martins, ‡a J. Egipto, a H. Osorio, † b A. Ribeiro and A. Cavaco-Paulo
DOI: 10.1039/c7ra10461h rsc.li/rsc-advances This journal is © The Royal Society of Chemistry 2017 RSC Adv., 2017, 7, 51581–51592 | 51581 RSC Advances PAPER Open Access Article. Published on 06 November 2017.

Hydrolyzed Plant Based Protein Nanopeptides.

Protection effects of rice protein hydrolysate on UVB-irradiated photodamage in Hartley guinea pigs skin and human skin fibroblasts Ruixue Zhang a,1, Ying Wei a,1,*[†], Jiangtao Zhang b, Muyi Cai a, Lu Lu a, Lei Fang a, Xiuyuan Qin a, Ruizeng Gu a,*
https://doi.org/10.1016/j.jff.2021.104504 R/ Received 29 December 2020; Received in revised form 24 March 2021; Accepted 12 April 2021/ 1756–4646/© 2021 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license

Role of topical peptides in preventing or treating aged skin F. Gorouhi and H. I. Maibach Department of Dermatology, University of California, San Francisco, CA, USA
International Journal of Cosmetic Science, 2009, 31, 327–345 doi:10.1111/j.1468-2494.2009.00490.x

PLANT/ PHYTONANOPEPTIDE FERMENTS

Assessment of Agaricus bisporus Mushroom as Protective Agent Against Ultraviolet Exposure Chae Yeon Hwang¹, Yuniwaty Halim², Marcella Sugata³, Dela Rosa⁴, Sheryl Putri Wijaya⁵ and Eden Steven¹, bioRxiv preprint doi: <https://doi.org/10.1101/2021.10.21.465111>; this version posted October 24, 2021. It is made available under aCC-BY-ND 4.0 International license.

Mushroom Cosmetics: The Present and Future
Yuanzheng Wu 1,2, Moon-Hee Choi 1, Jishun Li 2, Hetong Yang 2 and Hyun-Jae Shin 1,*
Cosmetics 2016, 3, 22; doi:10.3390/cosmetics3030022, Cosmetics | An Open Access Journal from MDPI

IN VITRO SCREENING OF TOTAL CARBOHYDRATES AND PROTEIN AND PHYTOCHEMICAL OF WHITE OYSTER MUSHROOM (PLEUROTUS OSTREATUS) & BUTTON MUSHROOM (AGARICUS BISPORUS.)
Corresponding Author: - Ria Bhar *Department of Biotechnology, School of Life Science and Biotechnology, Adamas University, Kolkata, India E-mail addresses: bhar.riya89@gmail.com (R.Bhar) DOI: - 10.48047/ecb/2023.12.sii0.00518, Eur. Chem. Bull. 2023, 12(Special Issue 10), 4512–4521

Nutritional, bioactive compounds content, and antioxidant activity of brown seaweeds from the Red Sea
ORIGINAL RESEARCH article, Front. Nutr., 26 July 2023, Sec. Nutrition and Sustainable Diets
Volume 10 - 2023 | <https://doi.org/10.3389/fnut.2023.1210934>

Potential Use of Seaweed Bioactive Compounds in Skincare—A Review
Valentina Jesumani 1, Hong Du 1,*[†], Muhammad Aslam 1,2, Pengbing Pei 1 and Nan Huang 1
Mar. Drugs 2019, 17, 688; doi:10.3390/md17120688, Cosmetics | An Open Access Journal from MDPI

Tea (Camellia sinensis): A Review of Nutritional Composition, Potential Applications, and Omics Research
Cheng Wang 1, Jingxue Han 2, Yuting Pu 3 and Xiaojing Wang 2,3,*
Appl. Sci. 2022, 12, 5874. <https://doi.org/10.3390/app12125874>, <https://www.mdpi.com/journal/applsci>

Plant Based Phytonanopeptide Ferments :

MULTIPURPOSE INGREDIENT FOR COSMETICS: RICE (Oryza Sativa)
© 2022 IJNRD | Volume 7, Issue 7 July 2022 | ISSN: 2456-4184 | IJNRD.ORG

Role of topical peptides in preventing or treating aged skin
International Journal of Cosmetic Science, 2009, 31, 327–345 doi:10.1111/j.1468-2494.2009.00490.x

Safety Assessment of Plant-Derived Proteins and Peptides as Used in Cosmetics
© Cosmetic Ingredient Review 1620 L St NW, Suite 1200 • Washington, DC 20036-4702 • ph 202.331.0651 • fax 202.331.0088 • cirinfo@cir-safety.org, Release Date: October 13, 2016

Biocosmetics: technological advances and future outlook
Nishu Goyal · Frankline Jerold
Environmental Science and Pollution Research (2023) 30:25148–25169, <https://doi.org/10.1007/s11356-021-17567-3>

Topical peptides as cosmeceuticals opical peptides as cosmeceuticals Varadraj Vasant Pai, Prasana Bhandari aradraj Vasant Pai, Prasana Bhandari 1, Pankaj Shukl
© 2017 Indian Journal of Dermatology, Venereology, and Leprology | Published by Wolters Kluwer – Medknow

GREEN PDRN

Pichchapa L., Warintorn R., Natural Melanogenesis Inhibitor, Antioxidant, and collagen Biosynthesis stimulator of phytochemicals in Rice bran..., Plants(Basel) 2023 Feb; 12(4):970

Min young Um, Hyejin Yan, Rice bran extract supplement improves sleep efficiency and sleep onset in adults with sleep disturbance..., Scientific reports, (2019) 9:12339

VITAMIN COMPLEX

Chemical Stability of Ascorbic Acid Integrated into Commercial Products: A Review on Bioactivity and Delivery Technology
Xin Yin 1,2, Kaiwen Chen 1,2, Hao Cheng 1,2, Xing Chen 1,2, Shuai Feng 3, Yuanda Song 4 and Li Liang 1,2,*
Antioxidants 2022, 11, 153. <https://doi.org/10.3390/antiox11010153> <https://www.mdpi.com/journal/antioxidants>.

Permeation Study on Nano-Conjugation Tech of Helixion Biosciences : Permeation Study of Vitamin C Solution 30% and Vitamin C Nanoconjugate (CENTRE FOR CRUELTY – FREE TESTING (CCFT) (MIET Meerut) FIST Centre Sponsored by DST, Government of India (ISO 9001:2015; 14001:2015, OECD Compliant) PROJECT NO : CCFT-2023-08-106 REPORT NO. : MIET/CCFT/2023-08/106/Permeation, DATE : 30-08-2023

Int J Cosmet Sci. 2024;46:119–129.

POSTBIOTICS

Applications of Probiotic Constituents in Cosmetics
Jiaxin Dou 1,2,†, Ning Feng 3,†, Fangyu Guo 1,2, Zouquan Chen 1,2, Jie Liang 1,2, Ting Wang 1,2,*[†], Xueping Guo 4,* and Zhenshang Xu 1,2,*
Molecules 2023, 28, 6765. <https://doi.org/10.3390/molecules28196765> <https://www.mdpi.com/journal/molecules>

Fermented Cosmetics and Metabolites of Skin Microbiota—A New Approach to Skin Health
Akira Otsuka 1, Chihiro Moriguchi 2, Yuka Shigematsu 1, Kurumi Tanabe 1, Nanami Haraguchi 1, Sonoko Iwashita 1, Yoshihiro Tokudome 1,3 and Hiroshi Kitagaki 1,2,*
Fermentation 2022, 8, 703. <https://doi.org/10.3390/fermentation8120703> <https://www.mdpi.com/journal/fermentation>

Cera-Glow, ferment lysates of Lactocaseibacillus rhamnosus IDCC 3201, improves skin barrier function in clinical study
Minjee Lee MS1 | Myun Soo Kim PhD2 | Sung Hee Jang MS2 | Hayoung Kim MS1 | Gwang Seob Kim MS1 | Hyerin Lee MS1 | Hyun Min Park MS1 | Jungwoo Yang PhD1
J Cosmet Dermatol. 2023;22:1879–1886. [wileyonlinelibrary.com/journal/jocd](https://www.wileyonlinelibrary.com/journal/jocd)

Postbiotic production: harnessing the power of microbial metabolites for health applications
REVIEW article
Front. Microbiol., 19 December 2023, Sec. Food Microbiology, Volume 14 - 2023 | <https://doi.org/10.3389/fmicb.2023.1306192>

Production, Formulation, and Application of Postbiotics in the Treatment of Skin Conditions
Fermentation 2023, 9, 264. <https://doi.org/10.3390/fermentation9030264> <https://www.mdpi.com/journal/fermentation>

Galactomyces Ferment Filtrate Potentiates an Anti-Inflammaging System in Keratinocytes
Xianghong Yan 1,*[†], Gaku Tsuji 2,3, Akiko Hashimoto-Hachiya 3 and Masataka Furue 3
J. Clin. Med. 2022, 11, 6338. <https://doi.org/10.3390/jcm11216338> <https://www.mdpi.com/journal/jcm>

OTHER ACTIVES /BIO ACTIVES AND BIO COMPLEX

Dermatological uses of rice products: Trend or true?
Zamli DH, Khan RM, Braun TL, Nawas ZY. J Cosmet Dermatol. 2022 Nov;21(11):6056–6060. doi:10.1111/jocd.15099. Epub 2022 Jun 2. PMID: 35587098

Almond : A health diamond- MILIND PARLE AND MEENU BHORIA
ANNALS OF PHARMACY AND PHARMACEUTICAL SCIENCES Volume 1 Issue 2 (October, 2010) Page : 147–151 Accepted : September, 2010

Coconut Milk as an Alternative of Cosmetic Material for Thinning Hyperpigmentation on the Face Skin,
January 2020, DOI:10.2991/aer.k.201124.056 LicenseCC BY-NC 4.0
Conference: International Joint Conference on Science and Engineering (IJCE 2020)

Coconut Milk as an Alternative of Cosmetic Material for Thinning Hyperpigmentation on the Face Skin
Nia Kusstanti¹,* Sri Usodoningtyas¹
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Arch Pharm Res Vol 30, No 7, 834–839, 2007

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Wang et al. Bioresources and Bioprocessing, <https://doi.org/10.1186/s40643-023-00678-9>

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As responsible members of the global health / Personal care community, we focus on:

- The development and manufacture of safe and reliable biomolecule ingredients and phytochemicals through unique, creative, and fascinating future technology.
- The development and application of products and technologies with a focus on Personal care, Health and Nutrition and improving quality of life for consumers while respecting our environment.

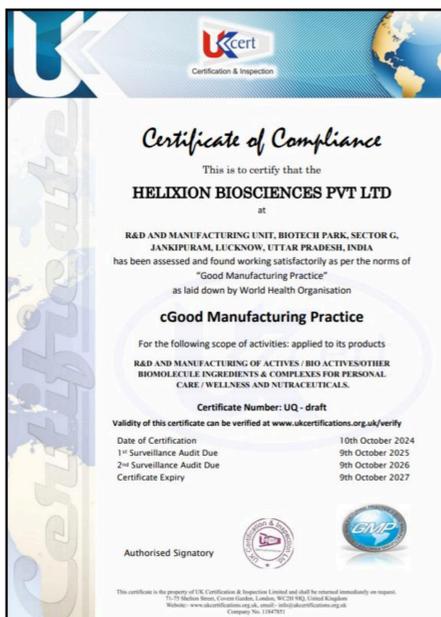
MISSION

Our mission is to discover, develop and commercialize small & large Bio-molecules extracted from biological origin/ Food By-Products, with key focus on a safe & enhanced bio-availability of such ingredients which can have a precise & desired optimal delivery in terms of it's functional benefits to a particular product formulation in Healthcare, Personal care, nutraceuticals and functional foods sector.

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- **Integrity** – Upholding the highest ethical standards in every aspect of our work.
- **Performance** – Surpassing commitments through innovative solutions and products.
- **Environmental Responsibility** – Ensuring sustainable and competitive manufacturing practices.

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As a Part of our Core Values where we are committed to the Delivery of Products with Exceptional quality, our entire Operations Team works completely in Tandem from Sourcing to Process to Product and Packaging under strong Quality Management Systems across each functions which is now further validated where our Process and Products has been now certified with Current Good Manufacturing Practices (cGMP) as laid down by World Health Organization (WHO). We are also now HALAL Certified.

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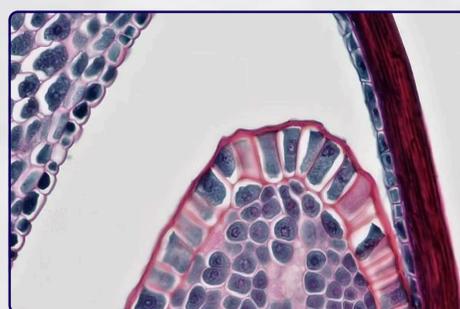
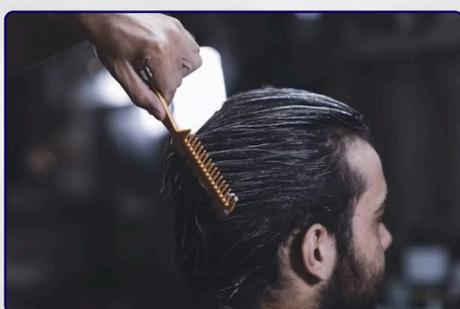
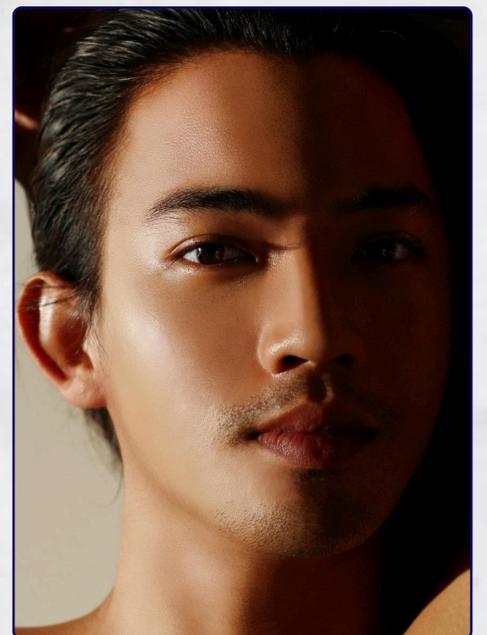
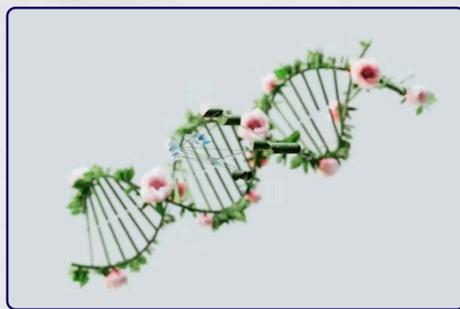
R & D and Manufacturing – A Glimpse



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