

PRODUCT LIST



morlab[®]
skin care biotechnology



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"Come To Discover MORLAB"

Morlab Biotechnological R&D Consultancy and Industry Trade

company was established in Antalya, TechnoPark in 2012 to carry our research and development activities with regard to cosmetics, medicine and functional food supplements.

Morlab makes effort to turn biotechnological approaches which take place in all stages of our lives into a significant and dynamic industrial activity in a way to be performed by people.

Morlab has been carrying on his studies to condition biology in every field of our life including both physical technology and biotechnology in the near future.



PLANT EXTRACTS



KEY PROCESS



MOR Anti-NSE Complex™

INCI Name: Propanediol, Water, Arnica Montana Flower Extract, Hordeum Vulgare Seed Extract

For use in skin care products, especially those for ageing, anti-wrinkle.

- ✓ Inhibits the production of MMP-which is a major protein involved in collagen breakdown
- ✓ Increases skin density (as a result of increased collagen synthesis)
- ✓ Protects cells against the effects of UV radiation exposure
- ✓ Inhibition of Neutrophil Elastase

MEHPAREX™

INCI Name: Propanediol, Water, Lavandula Angustifolia Flower Extract, Salvia Officinalis Leaf Extract, Artemis Nobilis Flower Extract , Allium Sativum Bulb Extract

For use in skin care products, especially those for ageing, anti-wrinkle. Combination of natural 4 plant extracts for maximum effect as below.

- ✓ Inhibits the production of MMP-which is a major protein involved in collagen breakdown
- ✓ Increases skin density (as a result of increased collagen synthesis)
- ✓ Smoothes skin and reduces appearance of wrinkles
- ✓ Protects cells against the effects of UV radiation exposure
- ✓ For eczema, sensitive and dry skin
- ✓ Anti-inflammation effect.



MOR PLANTAIN™

INCI Name: Propanediol, Water, Plantago Major Leaf Extract

For use in skin care products, especially those for ageing, anti-wrinkle and mature skin.

- ✓ Inhibits the production of MMP-1 and MMP-12 which is a major protein involved in collagen breakdown
- ✓ Increases skin density (as a result of increased collagen synthesis)
- ✓ Smooths skin and reduces appearance of wrinkles

MOR CLEANSING PLUS™

INCI Name: Propanediol, Water, Saponaria Officinalis Root Extract, Achillea Millefolium Flower Extract, Hibiscus Sabdariffa Flower Extract.

For use in cleansing products

- ✓ For eczema, sensitive and dry skin
- ✓ Skin conditioning
- ✓ Naturel cleanser
- ✓ Make up remover.
- ✓ Antioxidant and Antimicrobial Activity

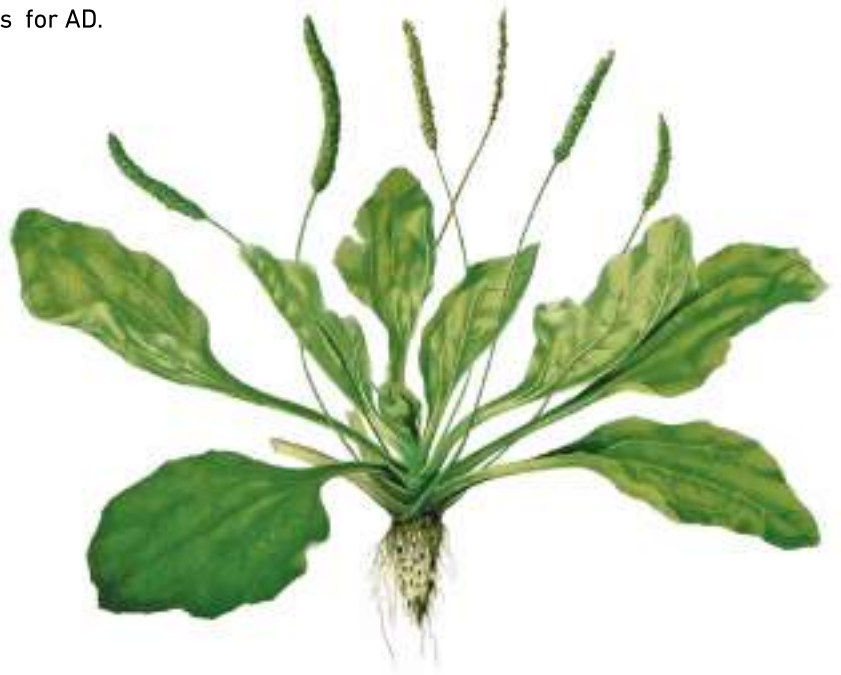
ATOPIX™

INCI NAME

Octyldodecanol, Salvia Officinalis Leaf Extract, Tocopherol, Juniperus Communis Fruit Extract, Piper Nigrum Seed Oil, Vitis Vinifera Seed Oil, Ficus Carica Fruit Extract, Glycerin.

Atopic dermatitis (AD) is a chronic pruritic inflammatory disorder characterized as a defect in the skin barrier. This skin barrier dysfunction manifests as an increase in transepidermal water loss (TEWL) and increased penetration of allergens and infectious agents, leading to inflammation and intense pruritus. Atopix is very high effective moisturizers for AD.

- ✓ Skin Hydration
- ✓ No Skin irritation
- ✓ Anti inflammation
- ✓ Increase in Filaggrin gene expression



PLANT EXTRACTS

Product Name	INCI Name	Efficacy
MOR SAGE	Propanediol Water Salvia Officinalis Leaf Extract	Anti aging Anti inflammation
MOR THYME	Propanediol Water Thymus Vulgaris Leaf Extract	Anti bacterial Skin protecting
MOR SEMARY	Propanediol Water Rosmarinus Officinalis Leaf Extract	Healing agents Antioxidants
MOR POME	Propanediol Water Punica Granatum Fruit Extract	Antiaging agent Cleansing Anti microbial agent Antioxidant
MOR CALENDULA	Propanediol Water Calendula Officinalis Flower Extraxt	Softening texturing agents Moisturizing agents Anti wrinkle agents
MOR CHAMOMILE	Propanediol Water Matricaria Chamomilla Flower Extract	Soothing agents Anti inflammatories Astringents
MOR TEA	Propanediol Water Camellia Sinensis Leaf Extract	Humectants Repairing agents Lightening whitening agents
MOR HATMI	Pronanediol Water Hibiscus Sabdariffa Flower Extract	Skin moisturizing Skin conditioner
MOR HORSETAIL	Propanediol Water Equisetum Arvense Extract	Firming agents botox like Healing agents Antioxidants
MOR STEVIA	Propanediol Water Stevia Rebaudiana Extract	Slimming agents Moisturizing agents

MOR VITEX OIL

INCI Name: Vitex Agnus Castus Extract

Vitex oil is rich linoleic acid, an essential polyunsaturated fatty acid critical for the maintenance of the skin permeability barrier. The next major component is the Stigmasterol of total sterols in Vitex seeds oil. Beta-sitosterol is most known for its use in wound care. Its anti-inflammatory activity was described long ago, and it is also an antipyretic (reduces fever) of similar strength to aspirine. Clinical studies found that this treatment also helps restore the barrier function of the skin, measured by reduced water loss. Interestingly, this effect was found to be associated with better scar appearance, demonstrating a relation between clinical and cosmetical functions.

Properties

Increases skin density (as a result of increased collagen synthesis)
 Smoothes skin and reduces appearance of wrinkles
 Antioxidant which include Vitamin E and trace elements
 Anti microbial activity
 Anti-acne
 Anti-inflammatory
 Wound healing support
 Matrix metalloproteinase (MMP) inhibitors



MOR ROSEHIP OIL

INCI Name: Rosa Canina Fruit Oil

Rosehip oil contains a list of active ingredients associated with anti-aging and skin boosting such as vitamin C (reported to encourage tissue repair), lycopene (potent antioxidant), vitamin A (a staple ingredient used in many skincare products), omega 9 (an essential fatty acid), beta-carotene (powerful antioxidant), and omega 6 (an essential fatty acid associated with reducing inflammation and fine lines

Mor Rosehip oil quickly absorbs into the skin, proving needed moisture.

It can heal scarring that has been caused by acne when a person was younger.
 It can help reverse the damage of excess sunlight during the summer.
 It can provide a protective barrier on the skin, which will prevent further moisture loss.
 It can help to correct any darker patches on the face.
 It can help heal facial skin that is suffering from skin conditions such as eczema, psoriasis, and dry.
 It can reduce fine lines and wrinkles.
 A bottle of rosehip oil is affordable for everyone.



MOR OAT LIPID

INCI Name: Avena Sativa (Oat) Kernel Oil

Oat Lipid is a natural lipid complex extracted from the oat kernel. It contains approximately 10% polar lipids, is rich in skin identical fatty acids including membrane phospholipids and ceramides is protected by powerful antioxidants.



MOR LAUROIL

INCI Name: Laurus nobilis (Bay) Oil, Tocopherol

Laurel seed Oil could be used as an ingredient in creams, shampoos, liquid soaps and in massage oils and it is suitable for all methods of soapmaking processes like any other oil.

Laurel Oil contains strong antibacterial properties and widely used in Middle Eastern cultures for skin and hair problems such as acne, dry skin, eczema, rashes, psoriasis, rosacea, fungal infections and arthritis.

Researchers have verified the efficacy of Laurus Nobilis as an antifungal, antibacterial and antiviral agent, and as an effective treatment for many/most of the aforementioned maladies.

MOR PUNICA OIL

INCI Name: Punica Granatum Seed Oil, Tocopherol acetate

Contains about % alpha-punicic acid (Omega 5), a polyunsaturated fatty acid close to linolenic acid (CLA). Several studies have shown its ability to speed wound healing, as well as play a positive role in the repair of sun damaged and aging skin. Pomegranate extracts exert their positive effects by extending the life of fibroblasts, the cells responsible for producing collagen and elastin, the components that give strength and support to the skin.

Pomegranate seed oil happens to be the favourite natural hair treatment for many because of the large content of punicic acid in it, which helps to revitalize and strengthen the hair and make it strong, lustrous and healthy.



MOR LIPID M™

INCI Name: Lavandula Angustifolia Oil, Thymus Vulgaris (Thyme) Leaf Oil, Vitex Agnus-Castus Leaf Oil, Juniperus Oxycedrus Fruit Oil, Vitamin E.

Effective solution for acne treatment with perfect combination of 5 plant oils

Lavender oil has profound benefits on your skin because of its antimicrobial and antioxidant characteristics. It soothes and nourishes the skin - treating acne, healing dry skin, and reducing the appearance of dark spots and scars caused by acne. Research shows juniper berry essential oil contains over 87 different active constituent compounds, including strong antioxidants, antibacterials and anti fungals.

Juniper berry essential oil is one of the most popular natural remedies for fighting skin irritations (like rash or eczema) and infections. It can serve as a home remedy for acne and supports beautiful skin, reducing stretch marks and helping heal conditions caused by hormone imbalances.

HYDROSOLS

HYDROSOL: NEXT AROMATHERAPY

Hydrosols are sometimes referred to as hydrolats, distillate waters or floral waters. Hydrosols can be used in place of water in creating natural fragrances, lotions, creams, facial toners and other skin care products. They can also be added to the bath, and used on their own as a light cologne or body spray.

Hydrophilic properties (water-soluble components) of the plant in solution as well as microscopic droplets of essential oils in suspension. Every liter of hydrosol contains between 0.05 and 0.2 milliliter (less than 1%, typically 0.01 - 0.04%) of dissolved essential oil, depending on the water solubility of the plant's components and the distillation parameters. Hydrosols also contain carboxylic acids, which may explain their observed anti-inflammatory activity.

Hydrosols have numerous benefits for the skin including:

Serve as hydrating components in a product, e.g. cream, cleanser, etc.

Effective toners

Anti-inflammatory, cooling

Wound healing

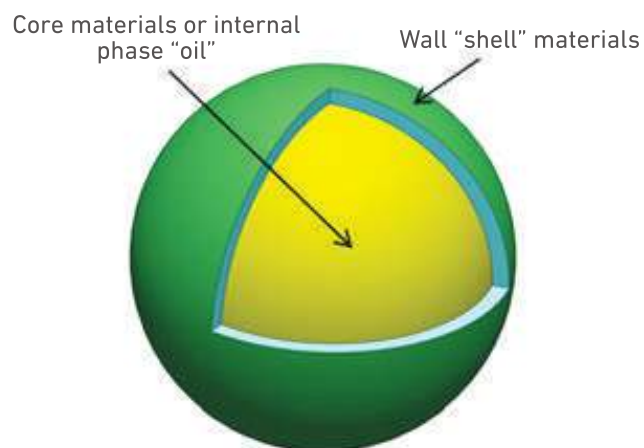
Safe for infants and young children in baths

Product Name	INCI Name	Efficacy
Mor Achillea Hydrosol	Achillea Millefolium Flower Water	Antioxidant Healing agent Shooting
Mor Anthemis Hydrosol	Anthemis Nobilis Flower Water	Cleasing Antioxidant Anti ageing agent
Mor Arnica Hydrosol	Arnica Montana Flower Water	Anti inflammatories Purifying agents Hair growth promoters anti hair loss agents
Mor Calendula Hydrosol	Calendula Officinalis Flower Water	Anti inflammatories Anti allergenic agents
Mor Thymus Hydrosol	Thymus Vulgaris (Thyme) Leaf Water	Aromatherapy Anti microbials Anti oxidants
Mor Hibiscus Hydrosol	Hibiscus Sabdariffa Flower Water	Anti aging Anti oxidant Whitening agent
Mor Lavandula Hydrosol	Lavandula Angustifolia (Lavender) Flower Water	Anti microbial Aromatherapy Cleanser Oily skin
Mor Mentha Hydrosol	Mentha Piperita (Peppermint) Leaf Water	Aromatherapy Cleansers Relaxing agents
Mor Rosmarinus Hydrosol	Rosmarinus Officinalis (Rosemary) Flower/Leaf/Stem Water	Antioxidants Healing agent Anti microbials
Mor Vitex Hydrosol	Vitex Agnus-Castus Seed Water	Aromatherapy Anti inflammatories Protective agents
Mor Citrus Hydrosol	Citrus Limon (Lemon) Fruit Water	Aromatherapy Nourishing agents Moisturizing agents Astringent
Mor Chamomilla Hydrosol	Chamomilla Recutita (Matricaria) Flower Extract	Cooling anti-inflammatory Eczema, psoriasis, rashes, acne Cleanser agents
Mor Cucumber Hydrosol	Cucumis Sativus (Cucumber) Distillate	Holistic aromatherapy Facial toner Baby care Wet wipes
Mor John's Hydrosol	Hypericum Perforatum Flower Extract	Wonderfully healing for the skin Calming and cleansing for the digestive system Effective for reducing colicky spasms Reduction of back pain

MICROENCAPSULATION

MicroEncapsulation Products

Microencapsulation provides an important tool for cosmetic and/or pharmaceutical industry, enabling protection and controlled release of several active agents. The encapsulation of essential oils in core-shell or matrix particles has been investigated for various reasons, e.g., protection from oxidative decomposition and evaporation, odor masking or merely to act as support to ensure controlled release.



Core Material	Application
Orange oil	Cosmetics ,Food and
Thyme oil	Pharmaceuticals
Rosemary oil	Cosmetics
Rose perfume oil	Food and Pharmaceuticals
Lemon oil	Cosmetics
Citronella oil	Insect repellents
Peppermint oil	Pharmaceuticals
Vitamin E	Food and pharmaceutical
Fig seed oil	Food
Black cumins seed oil	Food and cosmetics
Propolis	Food, cosmetics & pharmaceutical

GROWTH FACTOR & PROTEINS

rEGF, Recombinant Human Epidermal Growth Factor

INCI Name: rh-Oligopeptide-1

Physical Appearance: White lyophilized powder

Formulation : It is lyophilized with Mannitol as the stabilizer

Purity : More than 95% as determined by SDS-PAGE

Endotoxin : Less than 5EU/mg

Biological Activity: The ED50 is 1ng/ml determined by a cell proliferation assay using Balb/c 3T3 cell, corresponding to a specific activity of 1×10^6 Units/mg.

Recombinant Human Fibroblast Growth Factor

INCI Name: rh-Polypeptide-1

Physical Appearance: White lyophilized powder

Formulation : It is lyophilized with Albumin as the Stabilizer

Purity : More than 95% as determined by SDS-PAGE.

Endotoxin : Less than 5EU/mg

Biological Activity : The ED50 is 1ng/ml determined by a cell proliferation assay using Balb/c 3T3 cell, corresponding to a specific activity of 1×10^6 Units/mg.

Applications : Cosmetic

rLF, Recombinant Human Lactoferrin

INCI Name: Lactoferrin

Lactoferrin (LF), also known as lactotransferrin (LTF), is a globular glycoprotein with a molecular mass of about 80kD, which consists of two highly homologous lobes, designated the N and C lobes. Each LF molecule can reversibly bind two iron molecules. LF functions to transfer iron to the cells and control the level of free iron in the blood and external secretions. It has antibacterial, antiviral, antiparasitic, anti-cancer, anti-allergic and radioprotecting functions and properties. LF can also raise immunocompetence of body.

Physical Appearance : Lyophilized powder

Formulation : It is lyophilized with 20mM PB and 50mM NaCl

Purity : More than 95% as determined by SDS-PAGE

Endotoxin : Less than 1EU/mg

Recombinant Human Serum Albumin

Physical Appearance : Off-white to light beige lyophilized powder

Formulation : It is lyophilized with saline.

Purity : More than 99% as determined by SDS-PAGE and HPLC analysis.

Endotoxin : Less than 0.125EU/mg

Applications:

Mammalian cell culture

Vaccine manufacture and formulation

In vivo/vitro diagnostics

Cryopreservation of cell

Coating of medical devices

Cosmetic usage

PEPTIDE

- ✓ High quality & purity
- ✓ cGMP grade
- ✓ Various applications
- ✓ Clinically Proven
- ✓ Patented

Signal Peptides

Activity	Product	Sequence
Stimulate collagen and glycosaminoglycan synthesis	Palmitoyl Tetrapeptide-3	Palm-GQPR
Promotes specific type IV, IV, VII, and XVII collagen synthesis	Palmitoyl Dipeptide-6	Pal-Lys-Val-Dab-OH
Stimulates collagen and Hyaluronic acid synthesis	Palmitoyl Oligopeptide/Palmitoyl Hexapeptide	Palm-VGVAPG

Neurotransmitter-inhibiting peptides

Activity	Product	Sequence
Inhibits acetylcholine receptor release	Dipeptide Diaminobutyroyl Benzylamide Diacetate	H-b-Ala-Pro-Dab-NH-Benzyl.2AcOH
Inhibit the synthesis of SNARE receptor	Acetyl Glutamyl Octapeptide-3 (Acetyl Glutamyl Heptapeptide-3,	Ac-Glu-Glu-Met-Gln-Arg-Arg-Ala-Asp-NH2

Enzyme inhibitor peptides

Activity	Product	Sequence
Angiotensin-Converting Enzyme (ACE) inhibitor that can increase lymphatic drainage	Dipeptide-2	H-Val-Trp-OH
Dervatyl is an inhibitor of peptide structure which designed molecular modeling, specific to MMP12 and its functions was shown with in vitro and in vivo tests. Dervatyl decreases destruction of ECM proteins and provides remodeling of skin.	Dervatyl-Trade name	NA

Anti-aging and anti-free carbonylation-Oxy

Activity	Product	Sequence
Inhibits collagen carbonyl formation	Tripeptide-1	H-Gly-His-Lys-OH
Anti-free carbonylation-Oxy-	N-Acetyl Carnosine	c-Beta-Ala-His-OH

Skin Delivery Technology

Nanomaterials and nanobiotechnology have the potential to radically change the way cosmetics and medicines provide their benefits. MorLab Skin Delivery Platform Technology develops liposomes and lipid nano-carrier systems with proven efficacy and reliability. All toxicological, stability, absorption and cellular stress studies are carried out in our laboratory.

Mor Lipo

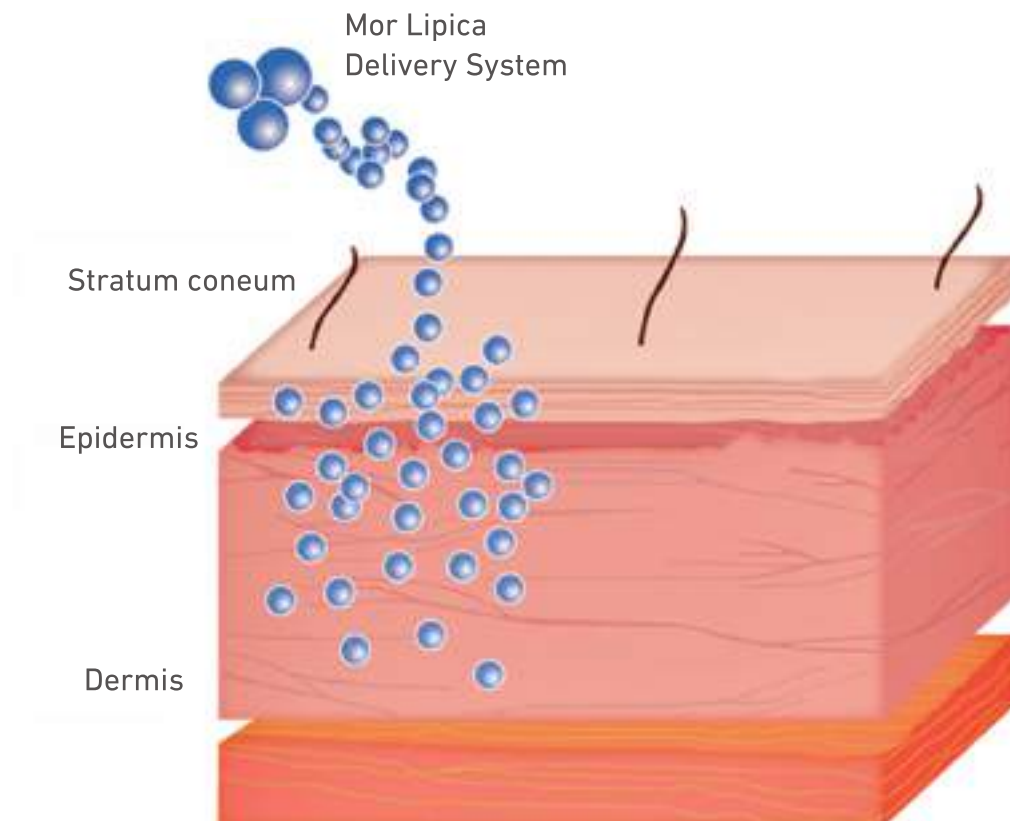
Liposomes are well-established nano-sized lipid-vesicles that offer potential value in topical drug delivery. They are formed by one or multiple lipid bilayers that enclose a discrete aqueous phase. Liposomes offer many advantages as drug delivery carriers—for example they are biodegradable, non-toxic, and are able to encapsulate both water-soluble and lipophilic substances.

Mor Lipica System : Mor Lipid Carriers Sytem for Skin Delivery

Nanostructured lipid carrier (NLC)

NLC is second generation smarter carrier system having solid matrix at room temperature. This carrier system is made up of physiological, biodegradable and biocompatible lipid materials and surfactants and is accepted by regulatory authorities for application in different drug delivery systems.

They exhibit major advantages such as modulated release, improved bioavailability, protection of chemically labile molecules like retinol, peptides from degradation, cost effective excipients, improved drug incorporation and wide application spectrum.



R&D

Research and Development (as an abbreviation R&D) is defined as 'creative study to improve knowledge and use this knowledge for new applications' by OECD.

Morlab has been conducting research and development activities in 3 parts.

1. Basic Researches
2. Applied Researches
3. Experimental Developments

Our aim is to create new products and services by increasing our productivity and quality of production.

Morlab includes such physical sciences as cell and tissue biology culture, molecular biology, microbiology, molecular physiology, pharmacology, dermatology, biotechnology and nanotechnology to its studies with a multidisciplinary working principle in the field of cosmetology and introduces some products whose efficiency was proved in terms of functionality.

We aim to be one step ahead of opponents in common with development of technology and attach priority to innovative studies in business models. In accordance with requirements of the era, we plan to present products regarding user's benefit to the market.



Toxicological
Test

In Vitro Test

Protein & Peptid
Engineering

Skin Delivery
System

Apitheraphy

APITHERAPY

Apitherapy is the use of honeybee produced substances for health and healing.

Apitherapy is the science and art of maintaining health with the use of the products of the honeybee hive.

Honeybees produce honey, pollen, propolis, royal jelly, and beeswax, all of which are used by people for nutrition, immune system support, treatment of a variety of ailments, skin care, and healing of open wounds.

Apitheraphy products In Morlab;

- ✔ Propolis and royal jelly are encapsulated with MorLab Skin Delivery Platform Technology.
- ✔ Propolis extracts are produced with ultrasound technology
- ✔ Propolis is dried with freeze dryer system, maximum efficiency is obtained
- ✔ High stability
- ✔ Preservation of all useful properties
- ✔ Low allergenic activity
- ✔ High concentration of the valuable nutrition components
- ✔ High digestibility
- ✔ High level of sterility

Product Name	INCI Name
Mor Propolis-Encapsule	Propolis Extract,Aqua
Mor Jelly	Royal Jelly Extract,Glycerin, Aqua
Mor Honey	Honey Extract, Propanediol,Aqua
Mor Api (liposomal complex)	Propolis Extract, Royal Jelly Extract,Aqua, Phospholipids





Morlab Biyoteknolojik Ar-Ge Danışmanlık San.ve Tic.

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Kulu Açı Olsat Tesislerinde
1 Kasım 2017 tarihinde basılmıştır.