



MULTIFUNCTIONAL HERBAL BLENDS FOR SKIN HEALTH



Botaniplex™

Multifunctional herbal blends for skin health

Botaniplex™ products are high-quality, potent, multifunctional blends of herbal extracts developed to address specific skin conditions, treating them efficiently and safely.

The products are blended from herbal extracts produced at ISO9001 facility. The herbal raw materials, obtained from reliable suppliers, originate in regions of China that grow the best quality medicinal herbs. After incoming Quality Control (QC) tests, the herbal material is subjected to our own proprietary extraction and purification steps. This results in liquid, easy to formulate extracts enriched in the desired phytochemicals and depleted of unwanted plant materials and contaminants. The extracts are subjected to rigorous QC tests before blending and further checks after formulation into Botaniplex™ products.



Botaniplex™ BALANCE SA

Rebalancing the skin inside & out

Botaniplex™ BALANCE SA is your solution for rejuvenated, resilient skin. By restoring microbial and immune balance, it helps defend against harmful microorganisms such as *Staphylococcus aureus* while supporting the skin's natural defense and repair mechanisms. With its prebiotic effect, it strengthens the skin barrier and helps maintain a healthy, balanced microbiome.

Revitalize and protect your skin barrier with **Botaniplex™ BALANCE SA**.



Sanguisorba officinalis
(Great Burnet)



Ailanthus altissima
(Tree of Heaven)

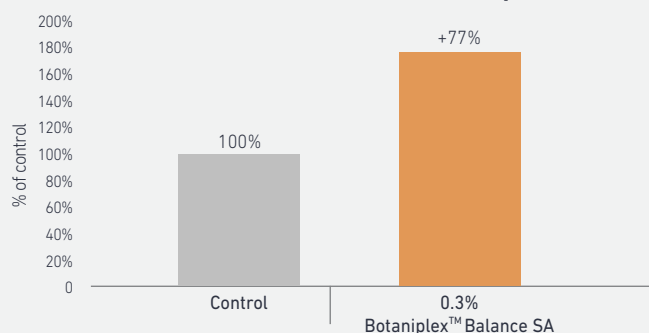
INCI Name: Glycerin, Water, *Ailanthus altissima* bark extract, *Sanguisorba officinalis* root extract

Preservative free
100% natural origin

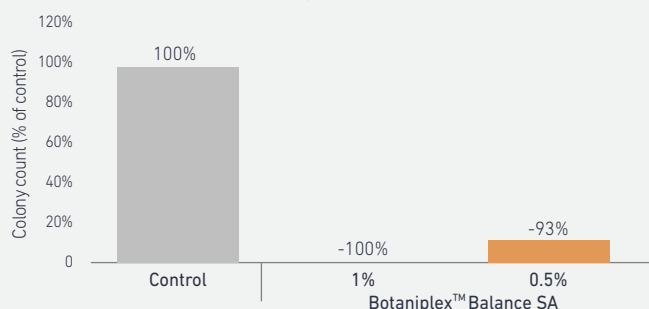
Microbiome balance

When the skin is damaged or infected, both immune dysregulation, and microbial dysbiosis that favors *Staphylococcus aureus* overgrowth, diminish the effectiveness of the skin barrier leading to itch, redness, swelling, scaling, dehydration and infection. By reducing pathogen growth while at the same time promoting growth of the beneficial bacteria *Staphylococcus epidermidis*, **Botaniplex™ BALANCE SA** protects the skin and keeps it balanced and healthy.

Prebiotic effect on commensal bacteria *S. epidermidis*

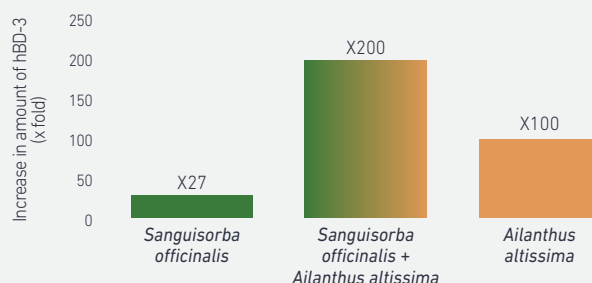


Antibiotic effect on pathogenic bacteria *S. aureus*



Supports the immune system

Botaniplex™ BALANCE SA stimulates production of defensin (AMP - Anti Microbial Peptide) and reduces defensin-suppressing cytokines like IL-4 and IL-13. In doing so, it breaks the cycle of inflammation associated with these conditions, stimulates innate immunity, and promotes better-balanced, resilient skin.



Claims:

- Microbiome balance
- Immune balance
- Anti-oxidant
- Soothing effect

Possible Applications:

- Skin care: Cream and cleanser for dry skin and irritated skin (sensitive skin, atopic eczema, maskne)
- Scalp care: Shampoo and lotion for dry scalp
- Baby skin care: Cleanser and lotion

Patent Granted: "Synergistic herbal compositions with prebiotic properties for treatment of skin infections, allergies and inflammation" US20180169171A1

Recommended use level: 0.2-1%

Formulation: Water miscible. Incorporation during the cooling phase (<40°C). Temperatures of up to 60°C for a short time do not affect the stability

Botaniplex™ BALANCE SC

Restore harmony to your
oily skin and scalp



*Chrysanthemum
indicum*
(Chrysanthemum)



*Phellodendron
chinense*
(Chinese Cork Tree)

Experience the transformative power of **Botaniplex™ BALANCE SC**, expertly formulated to restore healthy balance to irritated, unbalanced, and oily skin and scalp. Ideal for managing concerns such as acne, fungal acne, dandruff, and seborrheic dermatitis, it effectively targets the root causes of these conditions.

Rediscover healthy, balanced, and nourished skin and scalp with **Botaniplex™ BALANCE SC**.

INCI Name: Glycerin, Water, *Phellodendron chinense* bark extract, *Chrysanthemum indicum* flower extract

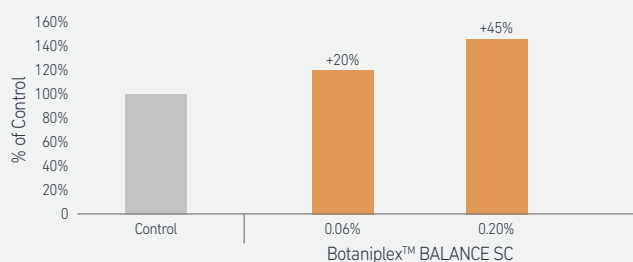
Preservative free
100% natural origin

Microbiome balance

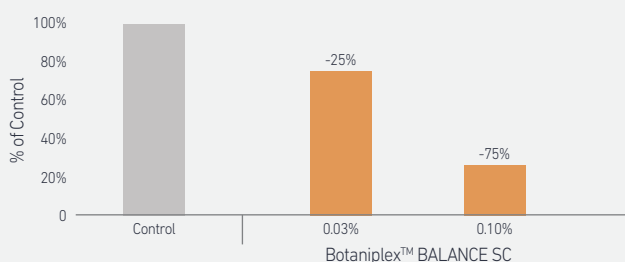
Acne and some types of dandruff result from an increase in sebum production that eventually leads to inflammation. In dandruff, *Malassezia* spp. and *Staphylococcus capitis* are two of the organisms whose overproliferation is thought responsible; in acne, excessive growth of *Cutibacterium acnes* is implicated. The overgrown pathogens overwhelm beneficial organisms such as *Staphylococcus epidermidis* that protect the skin, throwing the skin microbiome out of balance. **Botaniplex™ BALANCE SC** has prebiotic and antimicrobial activities to restore microbiome balance, and additional bioactivities to alleviate both acne and dandruff.

In-vitro

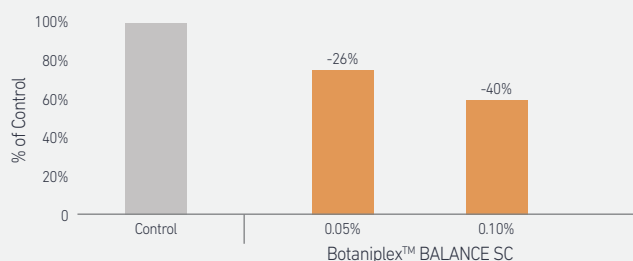
Prebiotic effect. Enhancement of *S. epidermidis* growth in presence of Botaniplex™ BALANCE SC



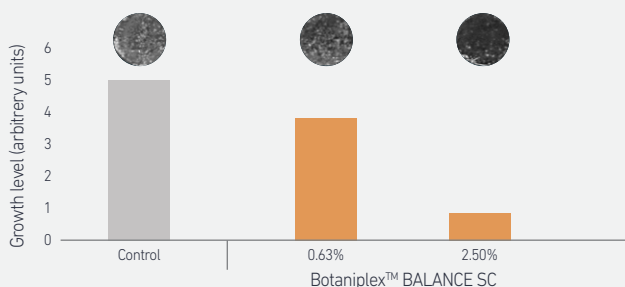
Antibacterial effect of Botaniplex™ BALANCE SC on *S. capitis* growth



Antibacterial effect of Botaniplex™ BALANCE SC on *C. acnes* growth



Anti-fungal effect of Botaniplex™ BALANCE SC on *Malassezia furfur* growth



In-vivo

Effective sebum reduction

Oily skin is characterized by excessive sebum production from the sebaceous glands. While sebum is crucial for moisturizing healthy skin, sebum overproduction can lead to conditions such as acne, dandruff, and cosmetic challenges like uneven texture, excessive shininess and makeup smudging.

Objective: Efficacy and tolerability of Face Gel for oily skin containing 3% **Botaniplex™ BALANCE SC**.

Study Population: 10 healthy female adults (age ≥18) with oily to combination skin.

Results: Sebum content measurement by Sebumeter® at Day 0 (before treatment) and at Day 28 (after treatment) showed significant reduction in skin sebum content.



Satisfaction with the treatment was reported by 8 out of 10 subjects after 28 days of treatment.

Q1: I am satisfied with the overall performance of the sebum reduction treatment.

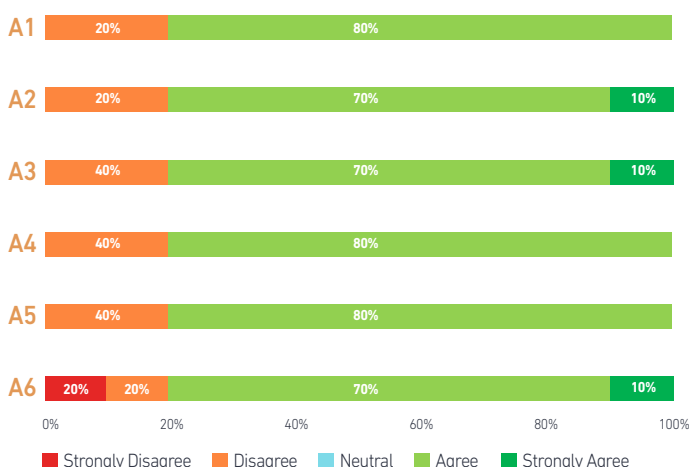
Q2: The treatment has improved the overall texture of my skin, making it smoother and less oily.

Q3: My skin feels less greasy after using the treatment.

Q4: Since using the product, I have noticed a visible reduction in shine on my skin.

Q5: Oiliness is eliminated quickly.

Q6: The product effectively reduces oiliness on my skin.

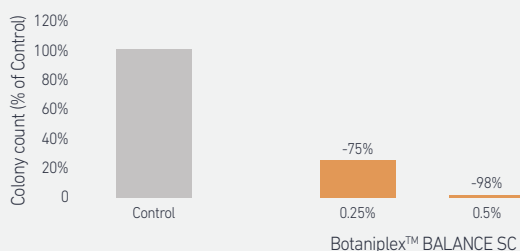


In-vitro

Oral care

Botaniplex™ BALANCE SC can be used for oral care, as it inhibits the growth of *Streptococcus mutans*, bacteria associated with tooth decay.

Antibacterial effect of Botaniplex™ BALANCE SC on *S. mutans* growth



Claims:

- Microbiome balance
- Sebum regulation
- Anti-oxidant
- Assistance in redness reduction

Possible Applications:

- Scalp care: Shampoo or lotion for oily, flaky, irritated scalp (Dandruff, Seborrheic dermatitis)
- Skin care: Cream or lotion for acne (including fungal acne)
- Oral care: Toothpaste, mouth wash
- Pet care: Shampoo, lotion

Patent Granted: "Synergistic herbal compositions with prebiotic properties for treatment of acne" WO2018087766 A1

Recommended use level: 2-5%

Formulation: Water miscible. Incorporation during the cooling phase (<40°C). Temperatures of up to 60°C for a short time do not affect the stability

Botaniplex™ CLEAR

Face the world again with CLEAR skin!

Botaniplex™ CLEAR is a powerful herbal blend designed to treat inflamed pimples, including pustular boils, and acne lesions caused by bacterial and fungal infections. With strong anti-inflammatory and antimicrobial properties, it soothes redness, reduces swelling, and restores balance.

By addressing key factors like *Staphylococcus aureus* infections, microbial imbalances, and inflammation, **Botaniplex™ CLEAR** offers a natural, effective solution for healthier, calmer skin.

INCI Name: Glycerin, Water, *Phellodendron chinense* bark extract, *Sanguisorba officinalis* root extract, *Rheum palmatum* root extract, *Portulaca oleracea* extract, *Chrysanthemum indicum* flower extract, *Scutellaria baicalensis* root extract

Preservative free
100% natural origin



Chrysanthemum indicum
(Chrysanthemum)



Phellodendron chinense
(Chinese Cork Tree)



Portulaca oleracea
(Purslane)



Rheum palmatum
(Rhubarb)



Scutellaria Baicalensis
(Skullcap)

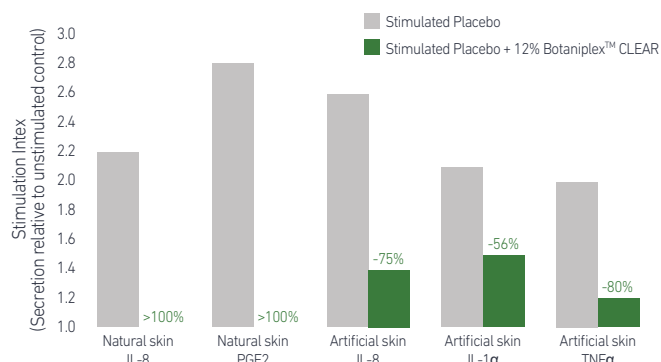


Sanguisorba officinalis
(Great Burnet)

In-vitro Inflammation

3D skin inflammation models

Botaniplex™ CLEAR decreases secretion of pro-inflammatory mediators from natural and artificial skin subjected to inflammation-inducing stimulus



Antioxidative capacity of 3% **Botaniplex™ CLEAR** is equivalent to 0.4% Vitamin E used in cosmetic products.



Anti-oxidant activity model, using DPPH radical scavenger (indicator of anti-oxidant activity) TEAC - Trolox (Vitamin E derivative)
Equivalent Antioxidant Capacity

In-vivo

Botaniplex™ CLEAR is more effective than Salicylic acid

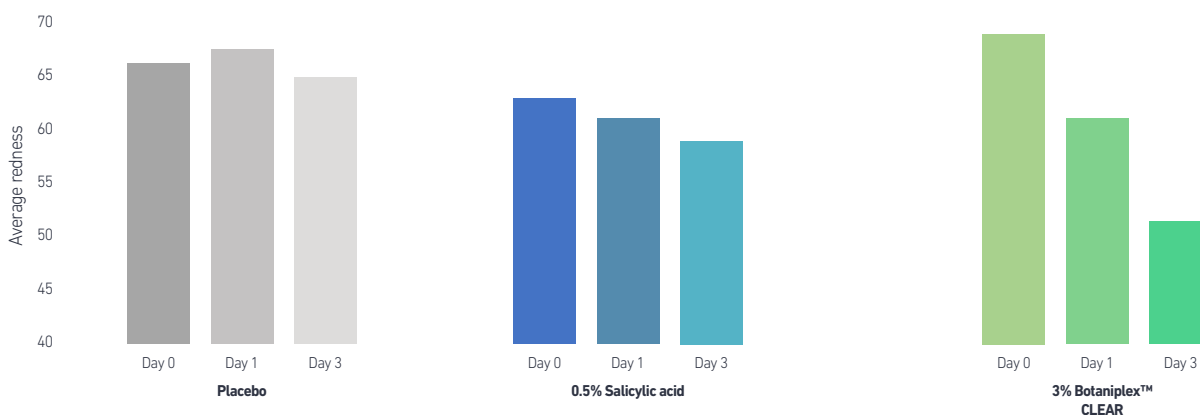
Objective: Efficacy and safety of Acne Patch containing 3% Botaniplex™ CLEAR.

Design: Randomized, Double Blind, Three Arms: Placebo, 0.5% Salicylic acid and 3% Botaniplex™ CLEAR.

Study Population: 15 volunteers with 3 inflamed acne pimples.

Results: Significant decrease in level of redness of the inflammatory lesions, after 1 and 3 days of use of patch with 3% Botaniplex™ CLEAR

Redness contrast intensity



In-vivo

Botaniplex™ CLEAR patch quickly resolves acne

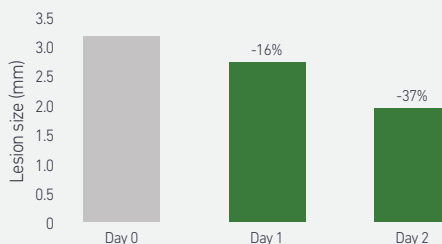
Objective: Efficacy and Safety of Acne Patch containing 3% Botaniplex™ CLEAR and 0.5% Salicylic acid.

Study Population: 10 volunteers with acne.

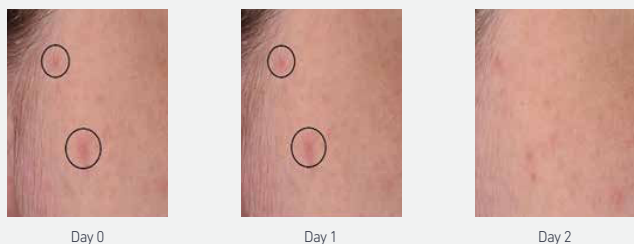
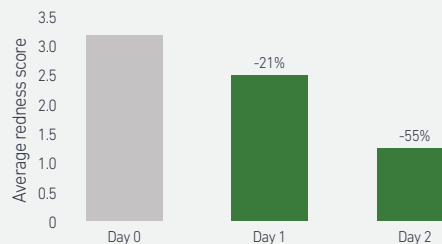
Results:

- Single application of patch containing 3% Botaniplex™ CLEAR is effective and safe in treating inflammatory lesions just after one and two days.
- 100% satisfaction with the product.

Lesion size reduction



Redness reduction



In-vivo

Botaniplex™ CLEAR - Reduction in visible acne

Objective: Efficacy and safety of Acne Spot Treatment Gel containing 12% Botaniplex™ CLEAR + 2% Salicylic acid.

Study Population: 24 adult volunteers with mild to moderate acne.

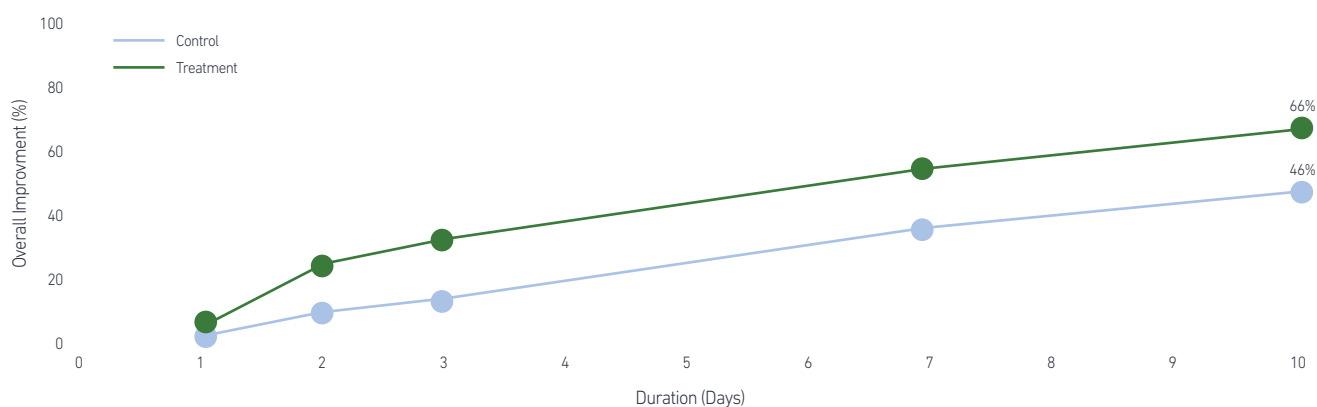
Design: Split-face study. One side was randomly selected to receive Acne Spot Treatment Gel.

Results:

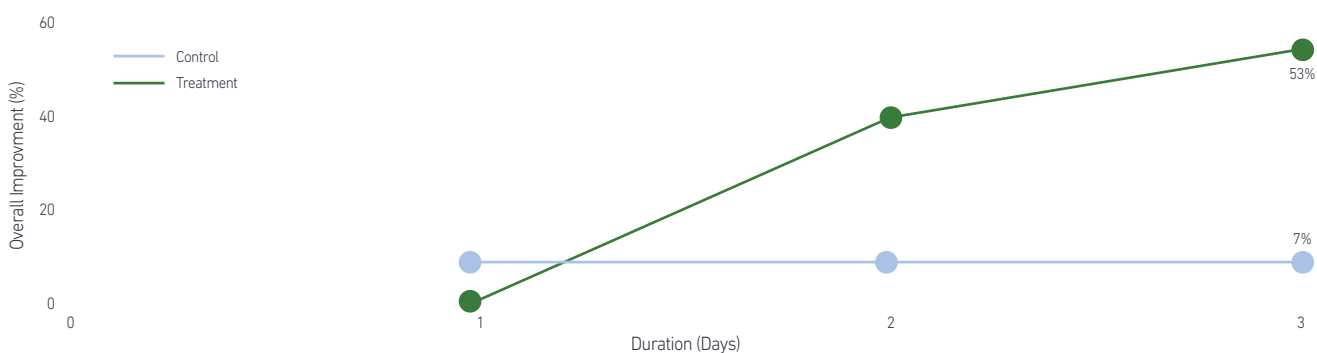
- Effective after just 5 applications (36 hours/ 1.5 days).
- Dramatic reduction of visible acne.
- Reduction of redness (erythema), especially in inflammatory lesions.

Overall improvement of inflamed lesions

Total population, N=24



Females under 18, N=5



Claims:

- ☞ Clears spots and pimples
- ☞ Soothes redness and irritation
- ☞ Microbiome balance

- ☞ Anti-oxidant
- ☞ Anti-pigmentation

Possible Applications:

- ☞ Face & body care: Gels and lotions
- ☞ Facial care: Masks & patches

Patent Granted: "Synergistic herbal compositions with prebiotic properties for treatment of acne"
WO2018087766 A1

**Recommended
use level:** 1-12%

Formulation: Water miscible. Incorporation during the cooling phase (<40°C). Temperatures of up to 60°C for a short time do not affect the stability

Botaniplex™ GUARD 3

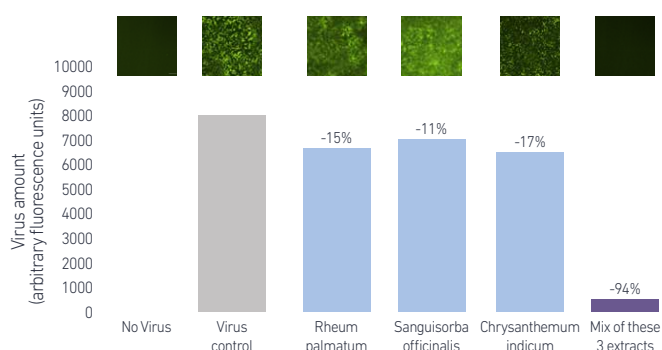
GUARD against viruses going viral!

Botaniplex™ GUARD 3 is expertly formulated to provide comprehensive care against Herpes simplex virus (HSV), the double-stranded DNA virus responsible for oral herpes (cold sores) and genital lesions. In cases where herpetic lesions are co-infected with microbes such as *Candida* spp. and *Staphylococcus* spp, this potent blend offers powerful defense.

With strong anti-HSV activity, alongside robust anti-microbial and anti-inflammatory properties, **Botaniplex™ GUARD 3** delivers advanced protection and promotes healthier, more resilient skin.

In vitro Synergistic anti-HSV-1 effect

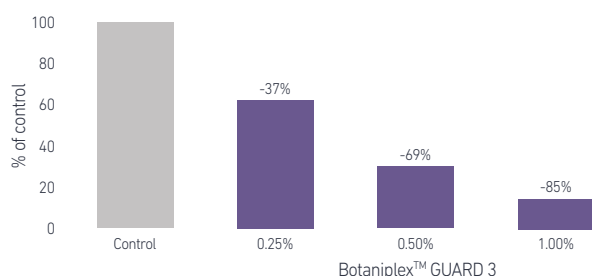
Synergistic inhibition of HSV-1 infection by herbal extracts. Host cells were infected with HSV-1 that carries a gene for a fluorescent protein (GFP). Growth of the virus was monitored by fluorescence microscopy and using a plate reader.



- The multiple mechanisms for the action of herbal anti-viral activity are currently under intensive investigation in cooperation with Prof. Kobiler – researcher at Tel Aviv University.

Antifungal effect

Inhibitory effect on growth of pathogenic fungi *Candida albicans*



Chrysanthemum indicum
(Chrysanthemum)



Sanguisorba officinalis
(Great Burnet)



Rheum palmatum
(Rhubarb)

INCI Name: Glycerin, Water, *Chrysanthemum indicum* flower extract, *Sanguisorba officinalis* root extract, *Rheum palmatum* root extract

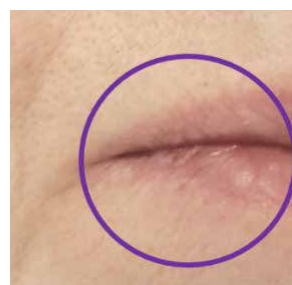
Preservative free
100% natural origin

In vivo Cold sore relief with Botaniplex™ GUARD 3

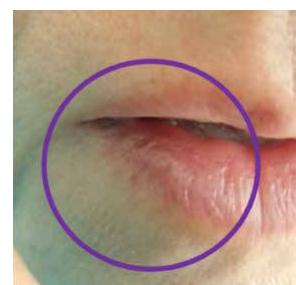
Objective: Effect of 3% Botaniplex™ GUARD 3 on cold sore.

Study Population: 10 adult volunteers with breakout of oral herpes

Results: All volunteers experienced complete or partial relief of oral herpes symptoms. Elimination or significant reduction of further pain, swelling, redness, wound development after 3-6 applications over 1-2 days. No adverse effects were observed.



Day 0



Day 1

Claims:

- | | |
|---|--|
|  Relieves pain on chapped lips |  Microbiome balance |
|  Soothes redness and itchiness |  Anti-oxidant |
|  Alleviates lip/genital irritation |  Immune support |

Possible Applications:

-  Lip care: Cream for dry, cracked, red lips
-  Lip care: Perioral (cold sore) cream
-  Intimate care: Wash and treatment gel

Patent Granted: "Herbal extracts for treatment of herpesvirus infections" WO2018135215 In vitro

Recommended use level: 1-3%

Formulation: Water miscible. Incorporation during the cooling phase (<40°C). Temperatures of up to 60°C for a short time do not affect the stability

Botaniplex™ CALM 4

Keep CALM, love your skin whatever your age!

Botaniplex™ CALM 4 is specially crafted to support skin through the complex aging process, addressing both intrinsic factors like inflammation and autoimmunity, and extrinsic factors such as mechanical stress, sunlight, pollutants, and pathogens.

As we age, the skin's ability to grow and repair slows, leading to visible signs of aging, including wrinkling, fragility, dryness, pigmentation, dermatitis, and slower wound healing.

With its targeted formulation, **Botaniplex™ CALM 4** promotes healthier, nourished skin, helping you embrace well-aging with confidence.

INCI Name: Glycerin, Water, *Rheum palmatum* root extract, *Scutellaria baicalensis* root extract, *Glycyrrhiza glabra* (Licorice) root extract, *Cnidium monnieri* fruit extract

Preservative free
100% natural origin



Scutellaria Baicalensis
(Skullcap)



Rheum palmatum
(Rhubarb)



Glycyrrhiza glabra
(Licorice)

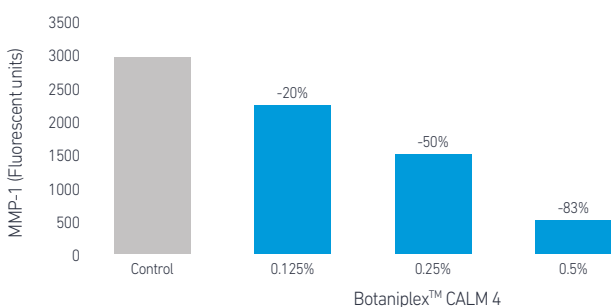


Cnidium monnieri
(Snowparsley)

In vitro

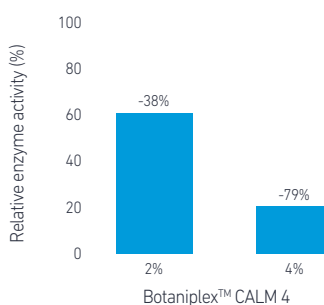
Skin integrity retention

Matrix Metalloproteinase -1 (MMP-1) is a collagenase, an intrinsic enzyme that digests collagen, an important skin structural protein. **Botaniplex™ CALM 4** helps preserve skin structure by inhibiting MMP-1.



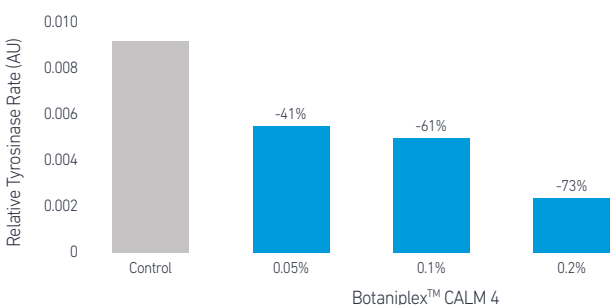
Moisture preservation

Hyaluronidase is an intrinsic enzyme that digests hyaluronic acid, a polysaccharide lubricant that occurs naturally in the skin. **Botaniplex™ CALM 4** inhibits hyaluronidase, helping to keep the skin moist and supple.



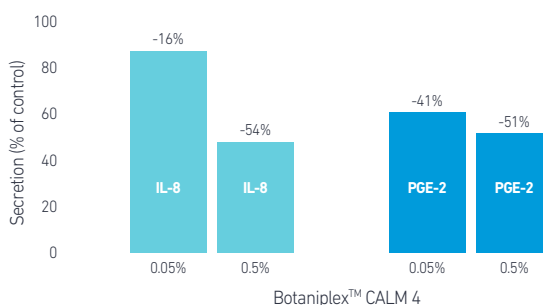
Lightening

Tyrosinase is an intrinsic enzyme responsible for synthesis of melanin, the pigment that causes dark patches on the skin. **Botaniplex™ CALM 4** is a strong inhibitor of tyrosinase.



Redness reduction

Botaniplex™ CALM 4 decreases secretion of pro-inflammatory mediators from keratinocytes subjected to UV-inflammation-inducing stimulus.



In vivo

Significant and visible reduction in signs of aging

Objective: Efficacy evaluation of face gel containing 4% **Botaniplex™ CALM 4** to reduce aging-related appearance of the skin.

Study Population: 42 adult volunteers with aging skin.

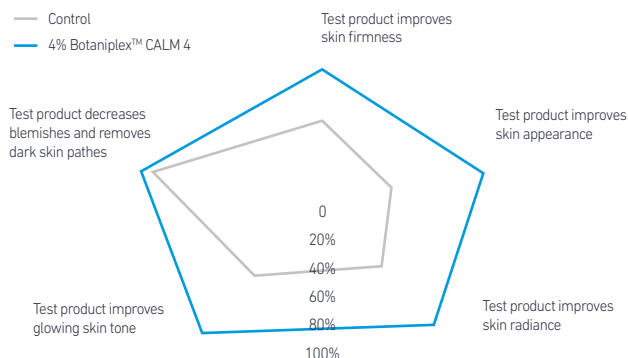
Design: Randomized, double-blind, placebo-controlled, study duration - 60 days.

Results:

- Reduction of fine lines and wrinkles
- Improvement in skin tone and glossiness
- Dryness reduction

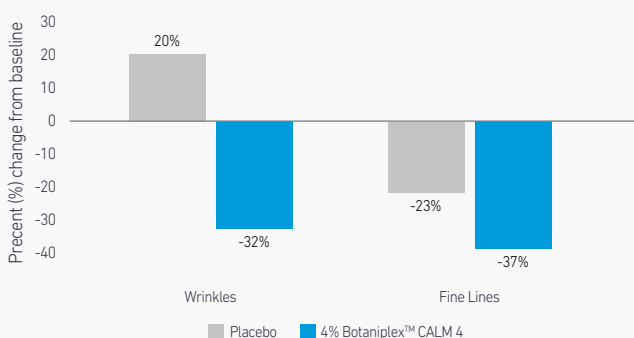
Percentage of satisfied volunteers

More than 50% were **very satisfied** with anti-pigmentation effect of the **Botaniplex™ CALM 4** product compared to only 5% with the placebo.



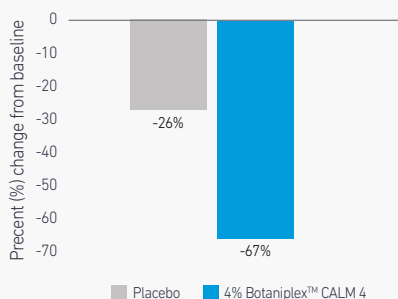
Wrinkles reduction

Vioscan assessment of wrinkles in the Crow's feet area reveals that **Botaniplex™ CALM 4** results in superior wrinkle reduction compared to the placebo.



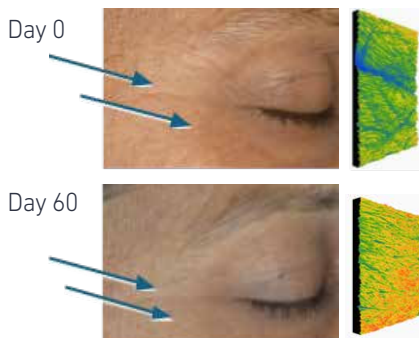
Skin brightening effect

Using a pigmentation scoring scale, a superior improvement in skin brightness was observed following the application of **Botaniplex™ CALM 4** as compared to placebo. The result was supported by Colorimeter analysis.



Visible Improvement in wrinkles

Image-Pro Software Analysis of Area and Intensity of Wrinkles and facial photographs demonstrate a visible reduction in wrinkles following the treatment with **Botaniplex™ CALM 4** gel.



Claims:

- Skin integrity retention
- Moisture preservation
- Anti-pigmentation
- Fine line & wrinkle reduction
- Assists in redness reduction

Possible Applications:

- Face & Body care: Moisturizing products
- Face & Body care: Anti-aging products
- Skin care: After sun products

Recommended use level: 1-4%

Formulation: Water miscible. Incorporation during the cooling phase (<40°C). Temperatures of up to 60°C for a short time do not affect the stability

Quality & Sustainability

Green Mountain Biotech is committed to minimizing its impact on the environment by sustainable sourcing and responsible use of resources. This includes awareness of the importance of plant biodiversity and conservation, and sensitivity to the communities who grow the medicinal herbs. In our own operations,

We use manufacturing and packaging materials as efficiently as possible, recycling solvents, and disposing of waste in an environmentally appropriate manner. Botaniplex™ products are COSMOS approved as genuine natural cosmetics produced to the highest feasible sustainability standards.

Also available from Green Mountain Biotech

GMB Herbal Extracts.
Multifunctional botanical extracts to
address skin concerns



Angelica polymorpha sinensis
root extract

Supports blood flow (microcirculation).



***Glycyrrhiza glabra* (Licorice)**
root extract

Multifunctional agent for inflamed
and aged skin



***Chrysanthemum indicum* flower**
extract

A Natural Shield for Pollution-
Stressed Skin.



Sapindus mukorossi
fruit extract (Soap Nut)

Multifunctional agent for skin cleaning.



***Portulaca oleracea* extract**
(Purslane)

For skin burns.



www.greenmbio.com | info@greenmbio.com

V-13.8



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