



GREEN MOUNTAIN
BIOTECH

Botaniplex™ CLEAR

Face the world again
with CLEAR skin!



Sanguisorba officinalis
(Great Burnet)



Scutellaria baicalensis
(Skullcap)



Rheum palmatum
(Rhubarb)



Chrysanthemum indicum
(Chrysanthemum)



Phellodendron chinense
(Chinese Cork Tree)



Portulaca oleracea
(Purslane)

BOTANIPILEX™ CLEAR

Inflamed pimples, pustular boils, and acne lesions caused by bacterial and fungal infections affect countless individuals, disrupting confidence and comfort. Beyond inflammation, these skin concerns are often linked to microbial infections (*C. acnes*, *S. aureus*), conditions such as acne and folliculitis, and the potential development of post-inflammatory hyperpigmentation.

Botaniplex™ CLEAR is here to change that.

This powerful herbal blend is specifically designed to treat inflamed skin with a natural, effective approach. Packed with potent anti-inflammatory and antimicrobial properties, it helps soothe redness, reduce swelling, and restore your skin's balance.

INCI:

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

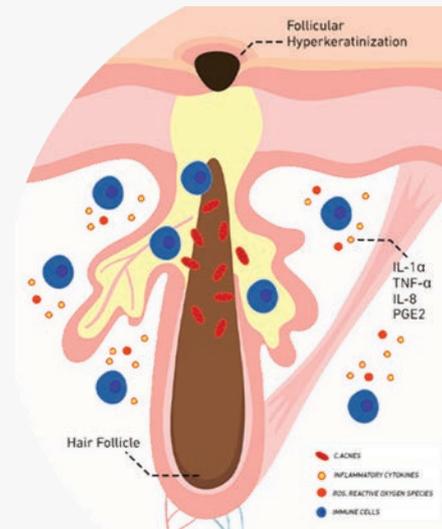


BEYOND THE SURFACE OF INFLAMED PIMPLES

Inflamed pimples are more than a surface-level issue, they result from complex biological processes, including oxidative stress and inflammatory responses, that disrupt skin health. Effective management of these breakouts requires addressing the root causes: excessive free radicals and overproduction of key inflammatory mediators.

Oxidative stress accelerates skin damage, triggering the release of pro-inflammatory cytokines like IL-8 and IL-1 α , which drive redness and swelling. Simultaneously, inflammatory mediators such as PGE2 and TNF- α amplify the response, worsening inflammation and prolonging recovery.

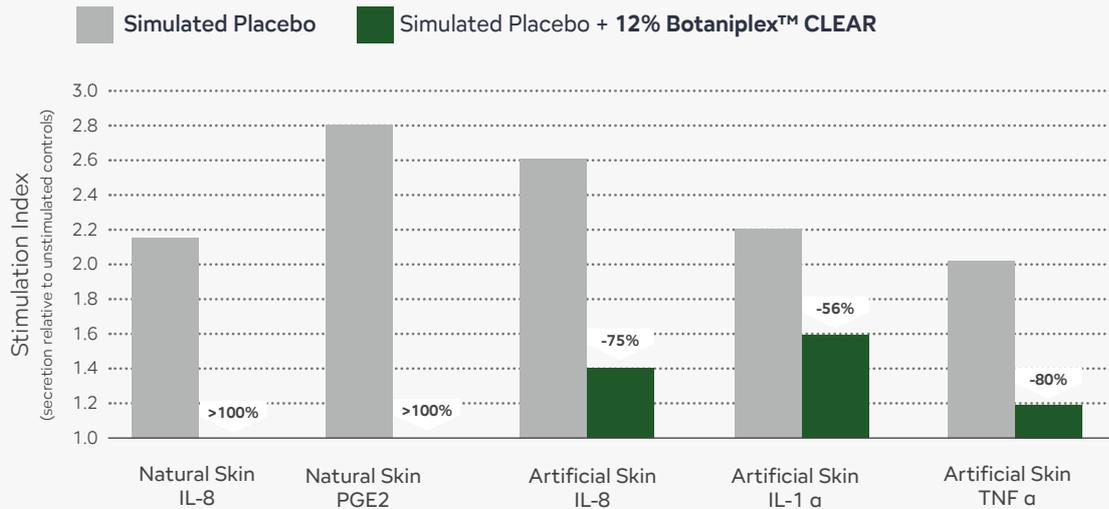
Incorporating ingredients that target IL-8, PGE2, IL-1 α , and TNF- α is essential for addressing inflamed pimples at their source, offering a scientifically backed pathway to healthier, clearer skin.



ANTI- INFLAMMATORY

Ex-vivo efficacy - 3D skin models

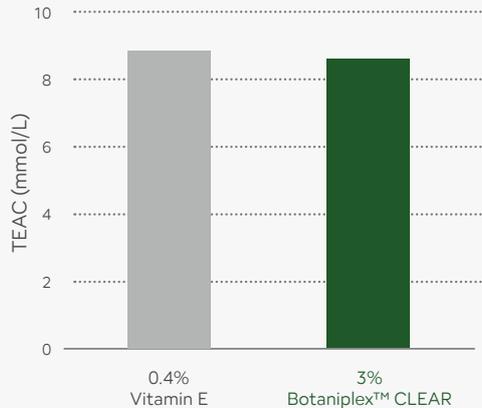
12% Botaniplex™ CLEAR decreases secretion of pro-inflammatory mediators from natural and artificial skin subjected to inflammation-like stimulus.



ANTI- OXIDATION

In vitro efficacy

Antioxidative capacity of **Botaniplex™ CLEAR** recommended doses as compared to 0.4% Vitamin E, a known anti-oxidant used in cosmetics.



Anti-oxidant activity model, using DPPH radical scavenger (indicator of anti-oxidant activity)

TEAC - Trolox (Vitamin E derivative) Equivalent Antioxidant Capacity

THE ROLE OF BACTERIA IN INFLAMED PIMPLES

Cutibacterium acnes and *Staphylococcus aureus*

Inflamed pimples are fueled by bacterial activity, with *Cutibacterium acnes* and *Staphylococcus aureus* playing significant yet distinct roles in triggering and exacerbating inflammation.

***Cutibacterium acnes*:** A natural part of the skin microbiome, *C. acnes* becomes pathogenic during excessive sebum production. It triggers inflammation by releasing cytokines like IL-1 α and IL-8, causing redness, swelling, and pimples.

***Staphylococcus aureus*:** Present in very low quantities on healthy skin, *S. aureus* invades damaged barriers, producing toxins and amplifying inflammation through mediators like TNF- α and PGE₂, leading to severe redness and pustular boils.

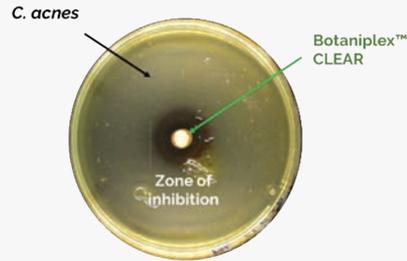
Targeting these bacteria with antimicrobial and anti-inflammatory strategies is essential for restoring clear, healthy skin.

ANTIBACTERIAL EFFECT

In-vitro efficacy - *C.acnes*

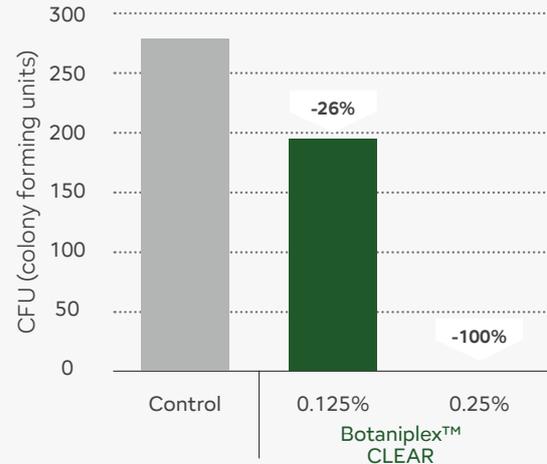
Antibiotic effect of **Botaniplex™ CLEAR** on *Cutibacterium (Propionibacterium) acnes* bacteria, pathogen associated with acne.

Disk Assay



Inhibition zone: 1.4 cm diameter

Colony Count



ANTIBACTERIAL EFFECT

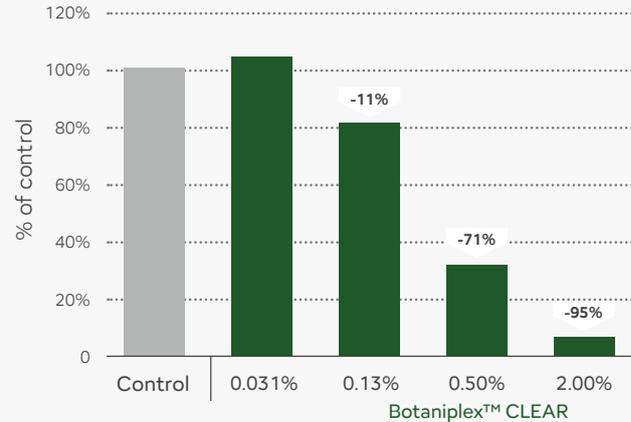
In-vitro efficacy - *S.aureus*

Antibiotic effect of **Botaniplex™ CLEAR** on *Staphylococcus aureus* bacteria, pathogen associated with folliculitis.

Disk Assay



Microdilution assay

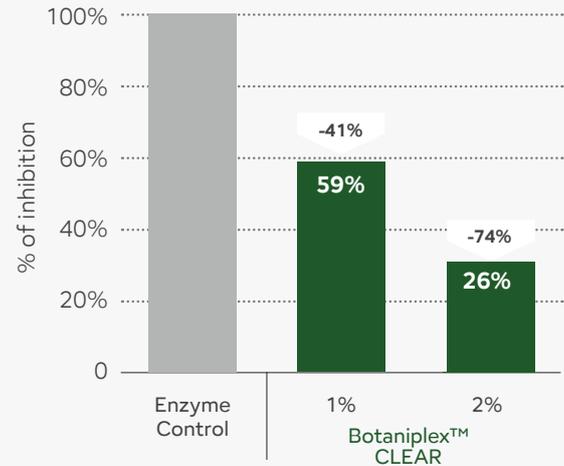


ANTI-PIGMENTATION

In-vitro efficacy - Tyrosinase

Acne-related hyperpigmentation develops when dark spots form following the healing of blemishes.

Botaniplex™ CLEAR works by inhibiting Tyrosinase activity, an enzyme involved in melanin production, the pigment responsible for these dark spots on the skin.



ACNE PATCH 1

In-vivo efficacy – Botaniplex™ CLEAR vs. Salicylic acid

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

Design: Randomized, Double Blind, Three Arms:
1. Placebo
2. 0.5% Salicylic acid
3. 3% Botaniplex™ CLEAR

Application: 15 volunteers with 3 inflamed acne pimples, each
volunteer tested all three treatment options

Study Population: Apply one patch per treatment area, replacing it
daily for two consecutive days

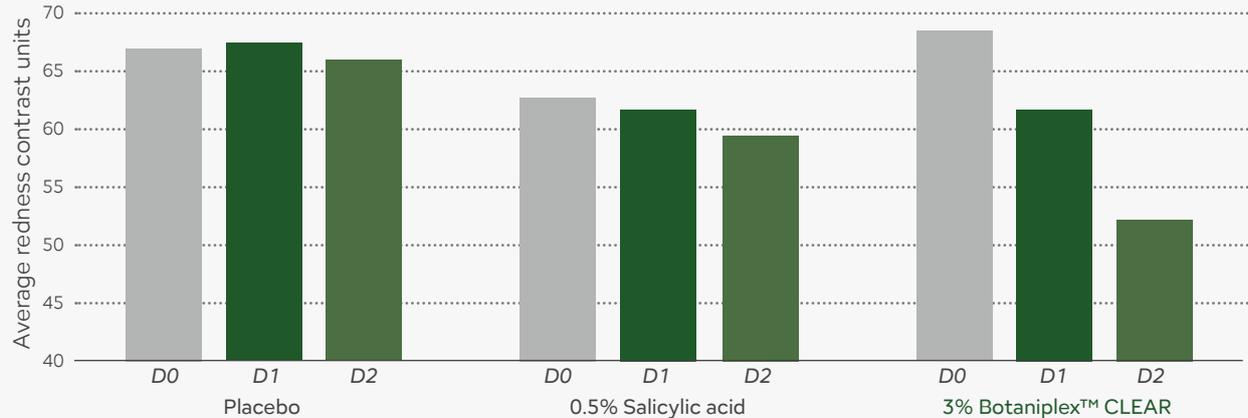
Analysis: Instrumental method using multispectral
technology



ACNE PATCH 1

In-vivo efficacy – Results

A significant reduction in the redness of inflammatory lesions was observed within 1 and 3 days of applying patches containing 3% **Botaniplex™ CLEAR**, compared to patches with Placebo or 0.5% Salicylic acid, as measured using multi-spectral technology.



ACNE PATCH 2

In-vivo efficacy –
Botaniplex™ CLEAR with Salicylic acid

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

Design: Interventional, open label

Application: Single application on day 0

Study Population: 10 adult subjects with inflamed acne pimples

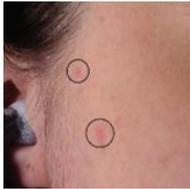
Analysis: Clinical evaluation by dermatologist



ACNE PATCH 2

In-vivo efficacy - Results

Significant decrease in size and level of redness of the inflammatory lesions, after 1 and 2 days of single use of patch with 3% **Botaniplex™ CLEAR** + 0.5% Salicylic acid.



Day 0

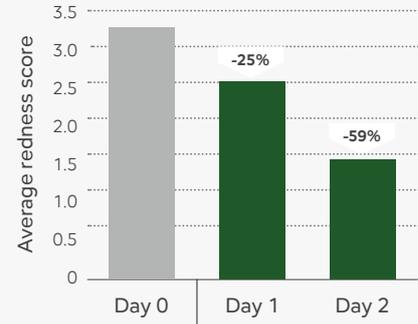


Day 1

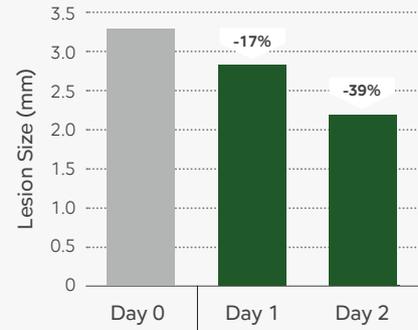


Day 2

Redness



Lesion Size



ACNE SPOT TREATMENT

In-vivo efficacy - Botaniplex™ CLEAR
with Salicylic acid

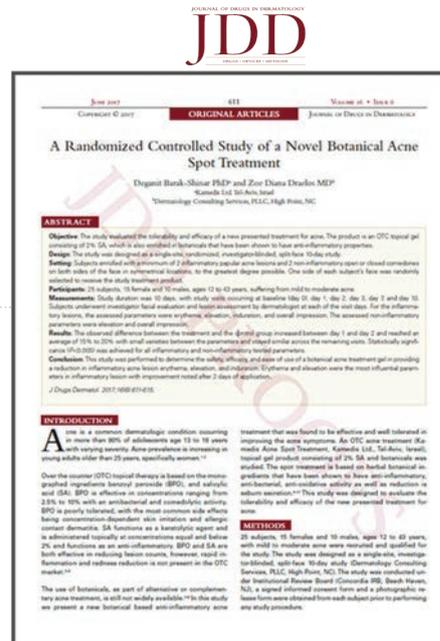
Objective: Efficacy and safety of gel, containing 12% **Botaniplex™ CLEAR** + 2% Salicylic acid for treating mild to moderate acne

Design: Interventional, randomized, investigator-blinded, split-face, vs. untreated control

Study Population: 24 adult subjects with mild to moderate acne

Treatment: Apply Gel 3 times a day
Study duration – 10 days
6 clinical visits: Day 0, 1, 2, 3, 7, 10

Recruitment Site: Dr. Zoe Dianna Draelos, MD at the Dermatology Consulting Services, PLLC, High Point, NC



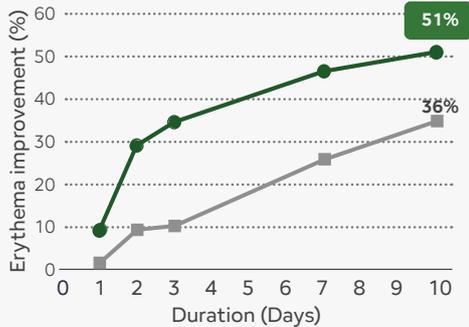
ACNE TREATMENT

In-vivo efficacy – Results

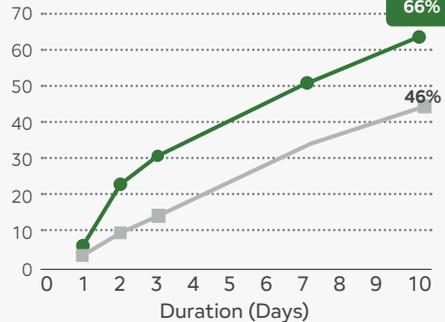
Acne Spot Gel dramatically improves ALL acne parameters after 10 days of treatment.

■ Control ■ Treatment

Erythema improvement

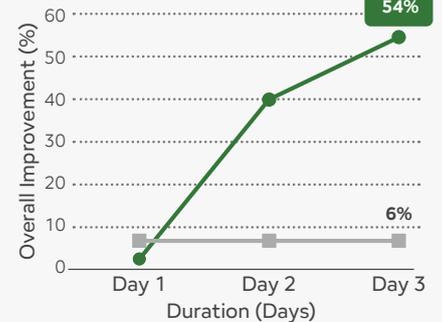


Overall Improvement



Overall improvement

(Among females under 18 after 3 days)



ACNE TREATMENT

In-vivo efficacy - Results

Efficacy:

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

Safety:

- No adverse events reported



PRESERVATIVE BOOSTER

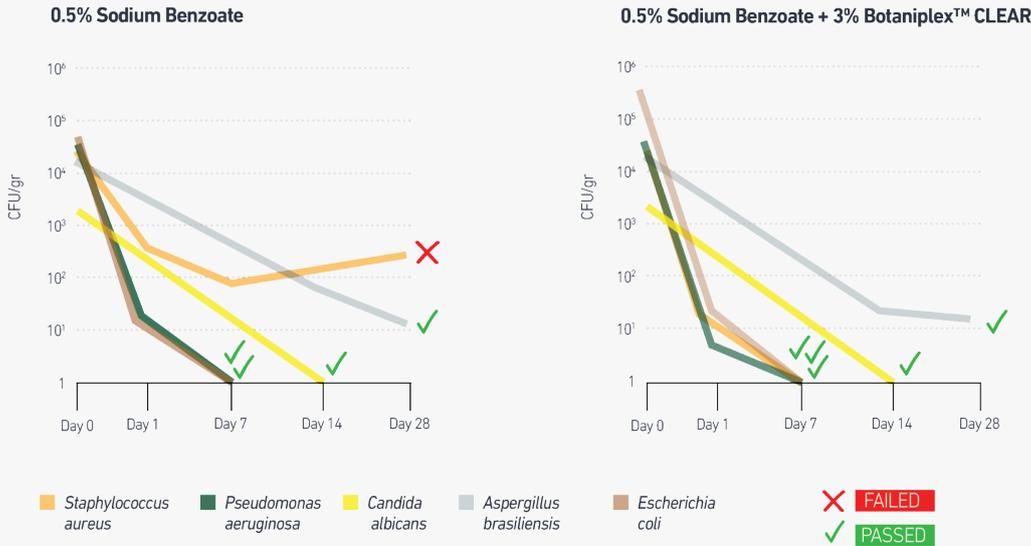
Every cosmetic product faces the challenge of staying fresh and effective over time. Traditionally, this has meant adding chemical preservatives to keep formulas stable. Today, with consumers seeking cleaner, more thoughtful formulations, formulators are looking for ways to protect products from the start, with fewer additives and without compromising product performance or identity.

This is where **Botaniplex™ CLEAR** brings added value.



PRESERVATIVE BOOSTER

Challenge test- Results



Results:

At 3% and pH 5.6, **Botaniplex™ CLEAR** meets Criteria A in challenge testing, supporting preservative efficacy.

MARKETING CLAIMS



Clears spots, pimples



Soothes redness and irritation



Microbiome balance



Anti – pigmentation



Anti-oxidant



Preservative booster



APPLICATIONS



Face and Body care:
Gel and lotion



Face care:
Masks and patches



TECHNICAL INFORMATION



Suggested use level:

1-12% for cosmetic claims
3-12% for preservative booster

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

Patent:

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

BENEFITS

Aqueous herbal extracts

100% natural origin

Preservative-free

Easy to formulate

High quality

Established safety

Proven efficacy

Sustainability

COSMOS approved

ISO 9001

China compliant



THE BOTANIPILEX™ SYSTEMS



Botaniplex™ BALANCE SC

- Improves microbiome balance
- Assists in reducing redness and irritation
- Regulates sebum secretion



Botaniplex™ GUARD

- Relieves lip-sore discomfort
- Helps to relieve genital lesions
- Soothes redness, itchiness, and irritation
- Improves microbiome balance



Botaniplex™ CALM

- Reduces dryness, wrinkling and fragility in aging skin
- Helps slow skin pigmentation associated with aging
- Reduces and soothes redness and irritation



Botaniplex™ BALANCE SA

- Improves microbiome balance
- Assists in reducing of redness and irritation
- Stimulates the skin's natural defense mechanisms



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