

COSMETIC INGREDIENTS
NEWPRODUCT

Skin Detoxifier

BioDtox

Discover freshly detoxified
and clarified skin



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Introduction

On average a woman is exposed to 515 chemicals per day. The chemicals are from the living environment including UV, pollutants, smoke, drugs and cosmetics. These chemicals are accepted as toxins to human body that cause side effects such as tissue damage, oxidative stress, mutation, and aging. To prevent this serial event, BioSpectrum, Inc. has introduced a skin detoxifier from nature.



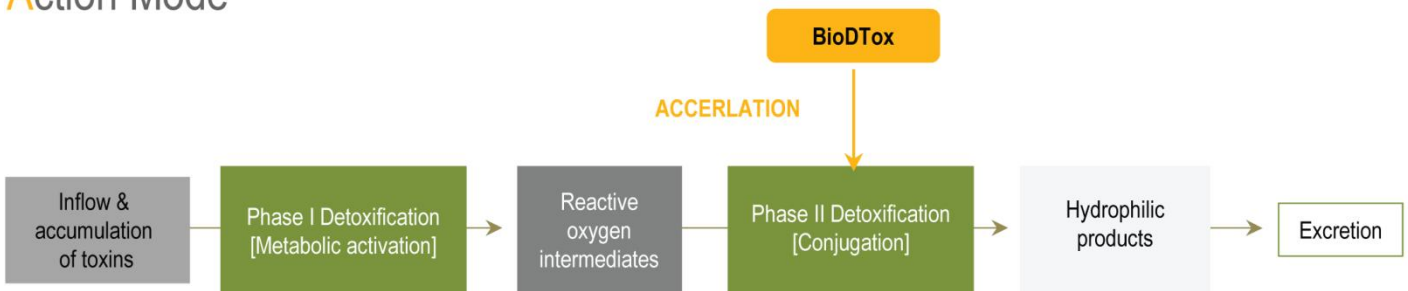
Bioflavonoids, also known as Vitamin P, because of its importance. They cannot be manufactured by the body, they must be supplied through the diet or topical use. Bioflavonoids are famous of its efficacy, especially strong antioxidative activity. Also, it is known to show anti-allergy and anti-inflammatory effects.

Broccoli is abundant source of sulforaphane, A well known activator of phase II detoxification enzyme.

Aloe is one of the native plants grow in Jeju island, Korea. Camellia japonica seed oil show anti aging and anti inflammatory effects.



Action Mode

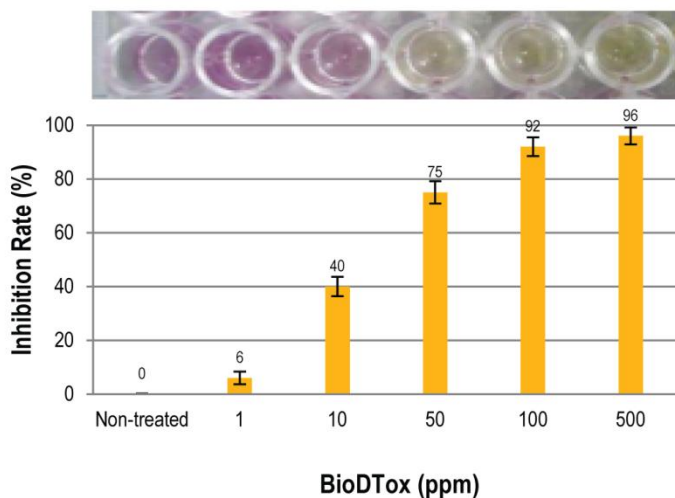


BioDTox encourages inflow and accumulated toxins excretion out of body

Experimental Data

Anti-Oxidative Effect

BioDTox scavenges free radical, dose-dependently.

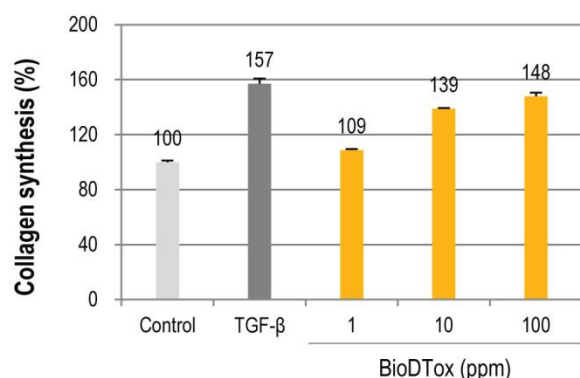


Oxidation is closely related with mechanism occurred by toxin inflow. When toxin flows in, radicals such as iNOS and ROS has produced and attack cells and tissues and cause tissue damage, mutations and aging. BioDTox has shown to disturb toxic process and help detoxifying by its antioxidative effect via scavenging DPPH radical

Experimental Data

Anti-Wrinkle Effect

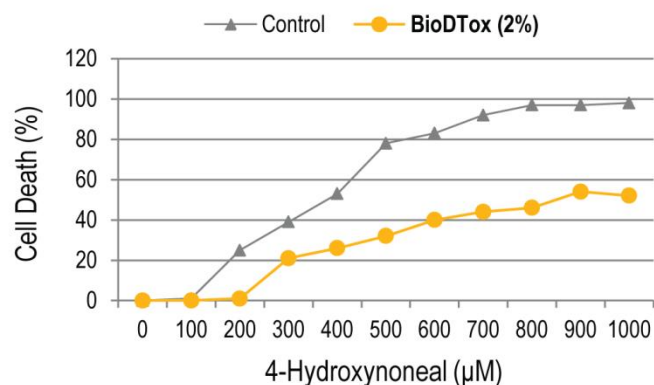
BioDTox boosts collagen synthesis



Many kinds of daily stress facilitates aging including wrinkle formation and lack of skin firmness. To compensate this negative affection, BioDTox has effect to stimulate collagen synthesis in human dermal fibroblasts.

Anti-Stress Effect

BioDTox protects skin from cell death by oxidative stress

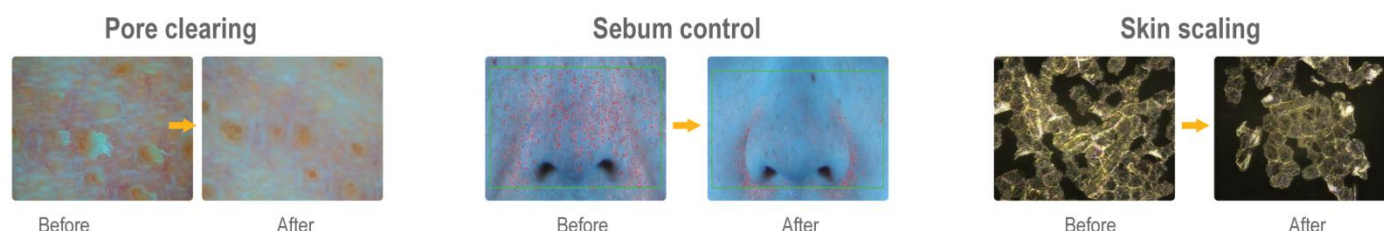


The protective effect of BioDTox on the human keratinocytes was analyzed using normal human keratinocytes. The chemical stressor used was 4-Hydroxynoneal (HNE). HNE is a reactive, cytotoxic aldehyde that is released during the oxidation of unsaturated fatty acids. HNE is a key mediator in oxidative stress-induced apoptosis. BioDTox exerts anti-stress effect against chemical stressor.

Clinical Data

Skin Detoxification Effect

BioDTox has effect to clean pores, reduce sebum and exfoliate softly



Test Center _Dermapro Skin Research Center (Korea)

Test Subject _30 subjects (average age 30.0±8.8)

Method _Make foam using an appropriate amount (about 0.5g) of cleanser, rub and massage on the whole face, then wash with water

Test Product _Form cleanser containing 2% BioDTox

Conclusion _BioDTox is considered that it has improvement of skin moisture, sebum spot, scaling on human skin.



Practical Hints

Product Name	BioDTox	
INCI Name	Propandiol (and) Bioflavonoids (and) Brassica Oleracea Italica (Broccoli) Extract (and) Aloe Barbadensis Leaf Extract	
Recommended Dosage	Recommendation: 2% Can be used 1%~ 5% in all kinds of facial and body care products	
Storage & Shelf Life	BioDTox should be stored in the original container protected from light in a clean place at a room temperature. If stored under the recommended conditions, BioDTox remains stable for at least 3 years.	
Specification	Appearance	Yellow liquid
	Odor	Characteristic
	Solubility	Water-soluble
	pH	3.00 ~ 6.00 at 25°C
	Specific Gravity	0.90 ~ 1.10 at 25°C
	Microbial Analysis	Less than 100 cfu per gram

