

ABS Moringa Pterygosperma Seed Extract G



Hottest New Superfood
 Potent Skin Conditioning
 Increases Barrier Function
 Natural Mix of Vitamins
 and minerals

BACKGROUND

When we look to nature to provide us nourishment, we are seldom disappointed. Being in touch with our natural environment suggests that we are in touch with our inner being. In many cultures, the symbolic wisdom of a tree is representative of life and when translated into a skin application; our skin can take on a new life. Moringa tree derivatives have traditionally been used in Indian cultures for both culinary and medicinal applications where Ayurvedic benefits have been a welcomed mainstay.

With an average height of 20 feet, a fully grown sapling can produce hundreds of pods spawning thousands of bountiful green seeds. The small edible pods are similar to green beans and taste like asparagus. Virtually every part of the plant is edible in either cooked or raw form. Commonly used as a treatment for malnutrition, the moringa tree has been hailed as the tree of life. Native to the southern foothills of the Himalayan region of India, almost every part of the exotic shrub maintains valuable properties. Our protein-free **ABS Moringa Pterygosperma Seed Extract G** provides beneficial conditioning properties to allow your skin the healing comfort that only a healthy and vital lifecycle can bring.

SCIENCE

Considered one of the world's most useful trees by scientists who study plants for human nutrition, the moringa tree (*Moringa oleifera*) produces the multifunctional moringa seed. The moringa seed boasts high levels of powerful antioxidants such as Vitamin C, beta carotene, iron, and potassium and is uniquely suited for cosmetic applications because of its botanical appeal. Vitamin C works as an antioxidant helping to free the body of radicals caused by lipid peroxidation, resulting in diminished signs of aging. Vitamin C and its derivatives are also useful for increasing collagen synthesis, which will help reinforce structural support allowing for anti-aging and anti-wrinkle

Code Number: 10550

INCI Name: Glycerin & Moringa Pterygosperma Seed Extract

INCI Status: Conforms

REACH Status: Complies

CAS Number: 56-81-5 & 93165-54-9

EINCS Number: 200-289-5 & 296-941-1

Origin: Botanical

Processing:

GMO Free

No Ethoxylation

No Irradiation

No Sulphonation

Additives:

Preservatives: None

Antioxidants: None

Other additives: None

Solvents Used: Glycerin

Appearance: Clear Yellow Liquid

Soluble/ Miscible: Water Soluble
 100% Biodegradability

Microbial Count: <100 opg,
 No Pathogens

Suggested Use Levels: 1.0-10.0%

Suggested Applications:
 Skin Conditioning, Barrier Function

Benefits of ABS Moringa Pterygosperma Seed Extract G

- Great for Skin Conditioning
- Replenishes Skin
- Natural Vitamins and Minerals
- Increase Barrier Protection

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benefits. The derivatives further enhance the skin by helping to erase spots and even skin tone where hyperpigmentation can result from structural damage. The body uses beta carotene by converting it to Vitamin A, which has been linked to reducing DNA damage in skin cells for a more youthful appearance. In addition to important vitamins, minerals such as iron and potassium also aid in cellular proliferation and differentiation. Iron is a supporting mineral that helps regulate fluid pressures within the skin. By balancing osmotic levels, we can help prevent cell shock resulting in decreased cell damage for a conditioned complexion. Proper potassium intake at the skin's surface can further nourish dermal layers for proper collagen formation.

A strengthened skin matrix provides increased barrier protection imparting a healthy, revitalized look. As a survival mechanism, the shrub has adapted the use of important phyto-compounds to withstand intense heat and prolonged sun exposure. A similar inherent protective mechanism can be translated to skin via the use of healing extracts of the plant source. To complement its medicinal uses, moringa plant materials have been used to rid the body of harmful byproducts for internal cleansing by traditional healers. Moringa is typically a fast growing tree and fruit bearing in its early life, the tree usually expires after 20 years. However, it can sprout new life quickly.

BENEFITS

The regenerative ability of budding compounds from within the roots and stems make the moringa seed an ideal ingredient for use in cosmetics designed to deeply condition the skin. Because our skin is in a constant state of renewal, it is imperative to replenish it with potent vitamins and minerals. Just as a parched tree is refreshed after a rain, your skin can be equally drenched with thirst-quenching benefits designed to fortify your skin barrier. Renew the surface of the skin with increased protection from exposure to weathering elements with the help of the time-tested moringa seed. Experience **ABS Moringa Pterygosperma Seed Extract G** for the dewy complexion that represents health at its finest, most natural incarnation.

EFFICACY DATA

An ORAC study conducted on **ABS Moringa Pterygosperma Seed Extract G** showed its capability of reducing the presence of Reactive Oxygen Species compared with Trolox, the vitamin E analog used as the control. **ABS Moringa Pterygosperma Seed Extract G** provides strong antioxidant attributes to deliver more than just moisturizing and conditioning benefits to the skin and hair.

ORAC Assay

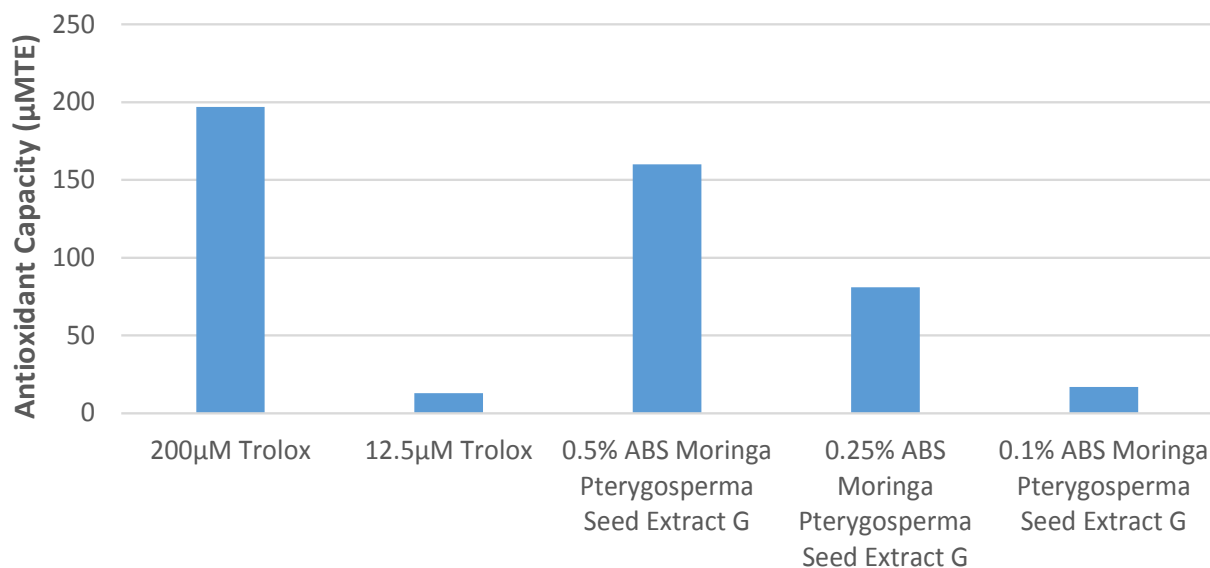


Figure 1. Antioxidant activity

ABS Moringa Pterygosperma Seed Extract G

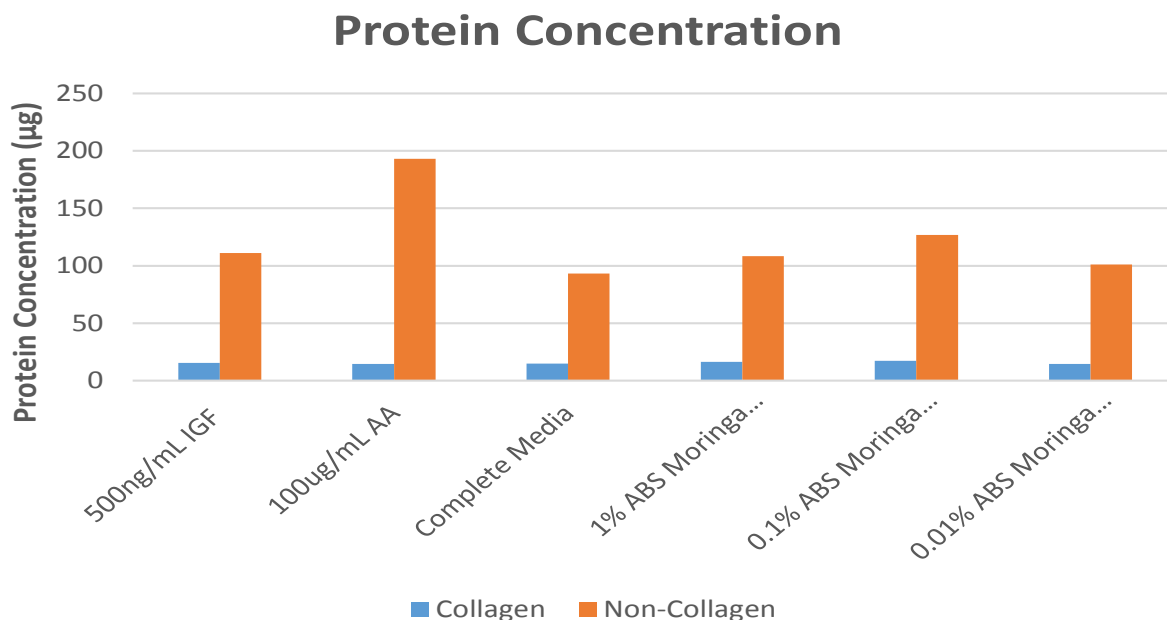


Figure 2. Protein Concentration

ABS Moringa Pterygosperma Seed Extract G is active at a cellular level, improving the molecular makeup of hair and skin. As shown in figure 2, **ABS Moringa Pterygosperma Seed Extract G** exhibited positive collagen synthesis activity. The increase in collagen production may lead to improvement in the dermal-epidermal junction integrity as well as an improved scaffolding matrix. For these reasons, we can assume **ABS Moringa Pterygosperma Seed Extract G** is suitable for cosmetic applications designed to boost collagen synthesis to aid in providing a younger and healthier complexion.

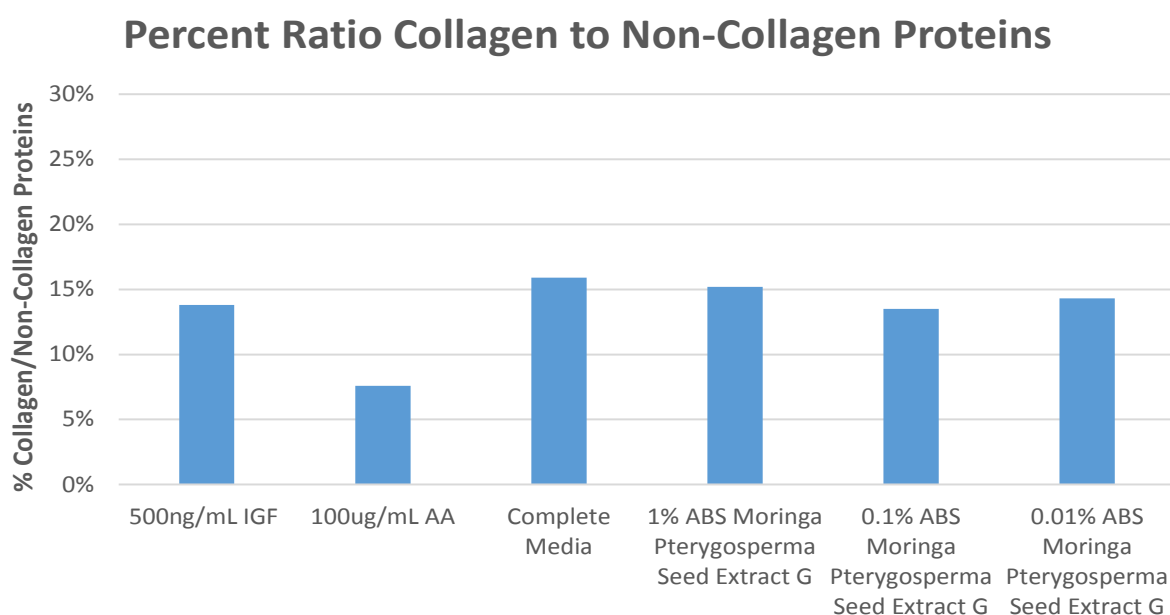


Figure 3. Percent Collagen compared to total protein amount

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ABS Moringa Pterygosperma Seed Extract G was tested in order to quantify a new anti-pollution standard concerning common pollutants that are $>2.5\mu\text{m}$ in size. **ABS Moringa Pterygosperma Seed Extract G** was applied to the skin and then contaminated with a premeasured amount of activated charcoal ($>2.5\mu\text{m}$ size particles). It was then washed using a controlled amount of water in order to quantify **ABS Moringa Pterygosperma Seed Extract G** ability to inhibit these particles from remaining on the skin. These results were compared against an untreated control and can be seen below, translated from a histogram denoting color change (lower is better, indicates skin tone).

Inhibition of PM 2.5

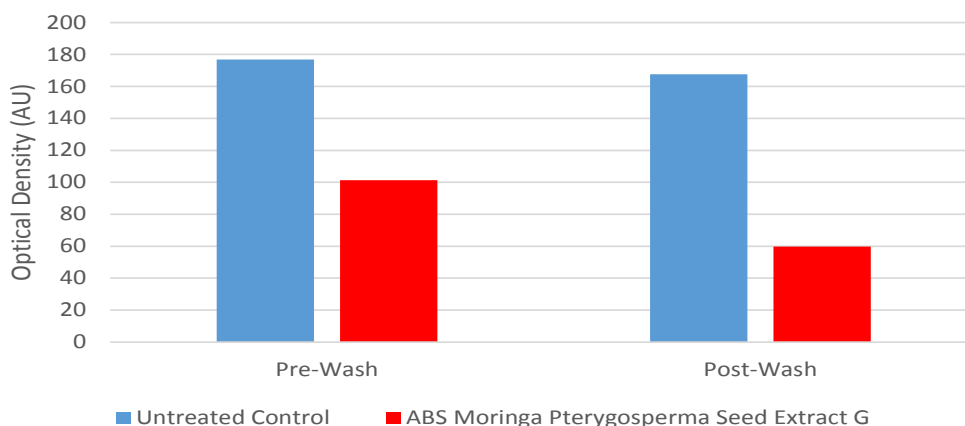


Figure 4. Ability to inhibit accumulation of particles $>2.5\mu\text{m}$ in size on the skin

It can be clearly seen in Figure 4 that **ABS Moringa Pterygosperma Seed Extract G** is able to effectively prevent the deposition of invasive PM 2.5 particles into the skin's fine lines and wrinkles. While in the untreated control group, it is shown that these particles are able to easily penetrate these lines, and remain there even after thorough washing.

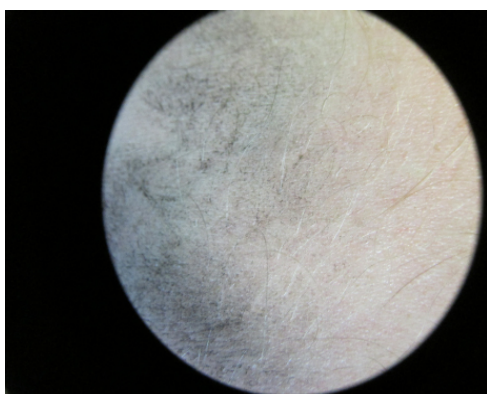


Figure 5. ABS Moringa Pterygosperma Seed Extract G pre-wash

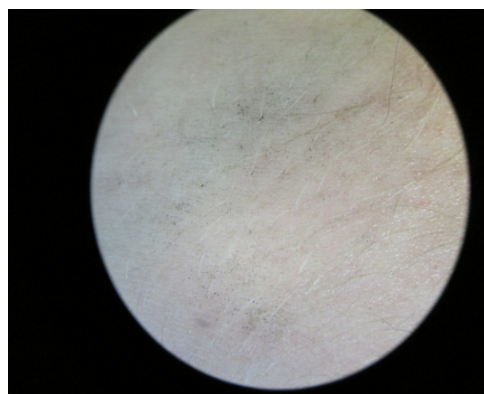


Figure 6. ABS Moringa Pterygosperma Seed Extract G pre-wash

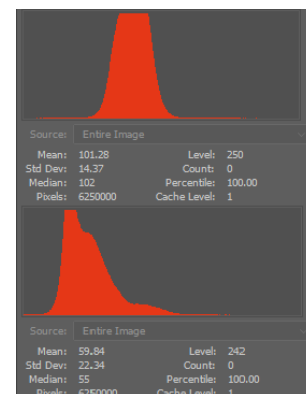


Figure 7. ABS Moringa Pterygosperma Seed Extract G Histograms

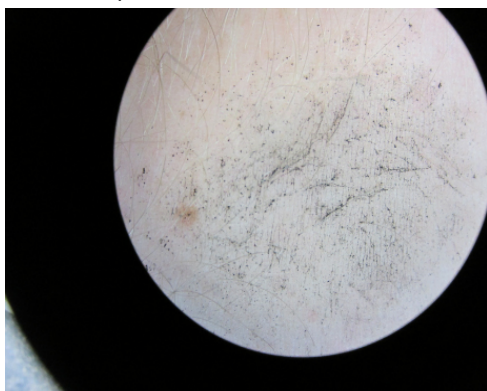


Figure 8. Untreated control pre-wash

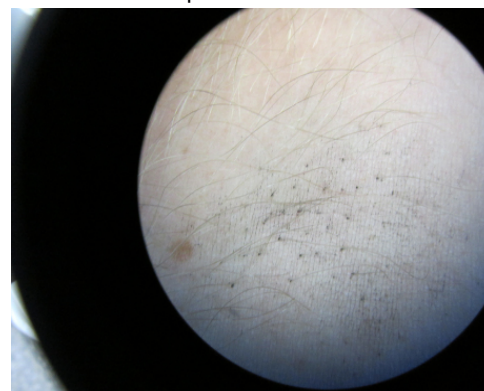


Figure 9. Untreated control post-wash

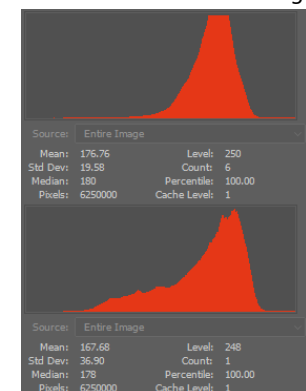


Figure 10. Untreated Histograms

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In dealing with cellular activity it is important to note any harm or changes occurring at these levels, **ABS Moringa Pterygosperma Seed Extract G** was tested to evaluate its effects on the viability of normal human dermal fibroblasts (NDHF). At concentrations of both 1.0% and 0.1% **ABS Moringa Pterygosperma Seed Extract G**, nor the preservatives contained therein exhibited any inhibition of cell viability. At lower concentrations, **ABS Moringa Pterygosperma Seed Extract G** was able to significantly increase levels of cellular viability. The data obtained from this study met criteria for a valid assay and the controls performed as anticipated, concluding that **ABS Moringa Pterygosperma Seed Extract G** can not be considered cytotoxic.

Cellular Viability Assay

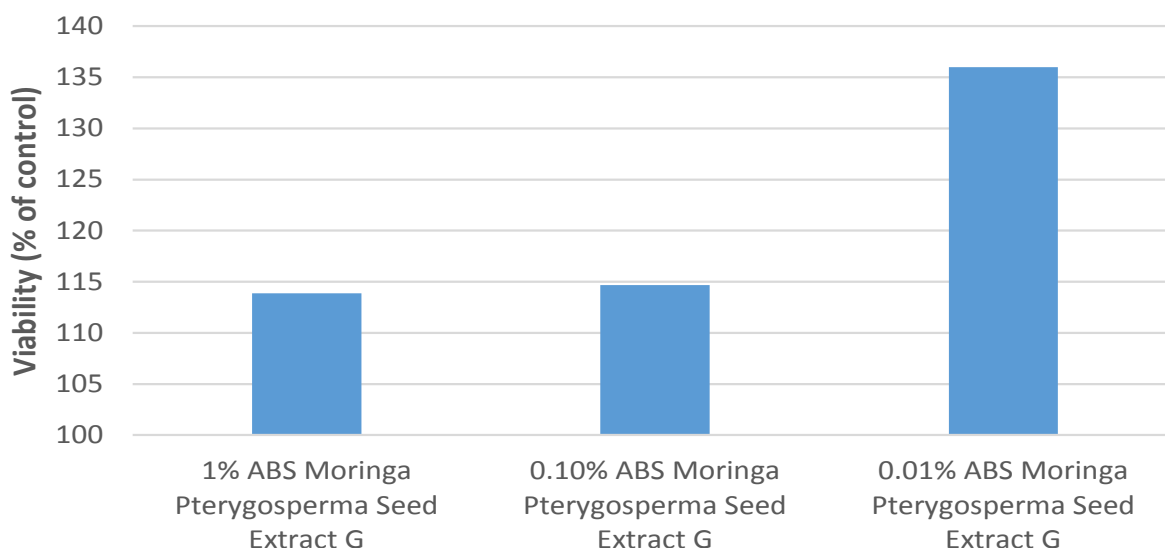


Figure 11. Cellular Viability Assay

References

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