

# Panax Ginseng Exosomes

## BIOTECH EDGE

Panax Ginseng Exosomes bring together the wisdom of **traditional oriental herbology and advanced biotechnology**. **Extracted from the revered Panax ginseng**, these exosomal vesicles encapsulate potent regenerative compounds that naturally communicate with skin cells to restore balance and vitality.

**Through precise exosomal delivery, they enhance cellular communication, strengthen skin structure, and promote visible renewal from within.** Their multitargeted action spanning antioxidant defense, anti-inflammation, and elasticity improvement positions them as a next generation biotech ingredient designed to elevate modern skincare with nature's most intelligent rejuvenation system.



Panax Ginseng Exosomes are derived from Panax ginseng, a perennial plant of the Araliaceae family traditionally known as the "root of immortality." **Cultivated in Korea's optimal environment**, it embodies a rich heritage of restorative efficacy. The exosomal fraction harnesses ginseng's intrinsic bio-activity, delivering antioxidant, cytoprotective, anti-inflammatory, and skin-regenerating effects that promote visibly healthier, stronger, and more youthful skin.

## PRODUCT DETAILS

INCI name:	Recommended Dosage:	Appearance:	Exosome Particles:
<b>Panax Ginseng Vesicles</b>	<b>0.01 - 2%</b>	<b>Colourless liquid</b>	<b>&gt;1x10<sup>8</sup> particles/ml</b>

## APPLICATIONS :



Anti-aging skincare focusing on firmness and elasticity improvement



Soothing and recovery formulations with antioxidant protection



Immune-supportive and cytoprotective skin treatments

## KEY FEATURES :

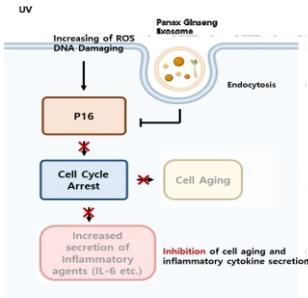
- Derived from Panax ginseng, a traditional herb recognised for regenerative properties
- Provides antioxidant, anti-inflammatory, anti-aging, and cytoprotective effects
- Promotes smooth absorption and revitalized skin texture
- Enhances skin vitality and resilience via exosomal delivery mechanisms

## WHAT IT BRINGS TO YOUR FORMULATION :

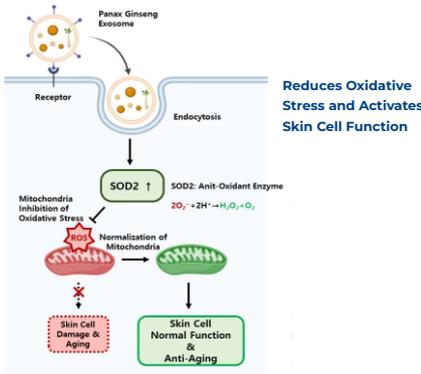
- Introduces botanical intelligence into biotech skincare formulations
- Enables targeted delivery of ginseng actives for antioxidant defence, calming, and barrier support
- Supports visible firmness, clarity, and radiance, elevating product performance
- Ideal for premium formulations seeking measurable anti-aging and skin-protective results

# EFFICACY STUDIES

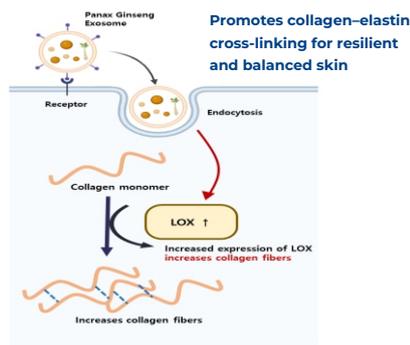
Clinical evaluations confirm multiple biological activities of Panax Ginseng Exosomes, including:



Effectively Suppresses Key Aging-Inducing Factors to Slow Skin Cell Aging and Maintain Healthy Skin

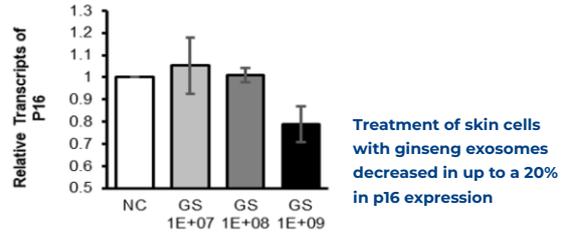
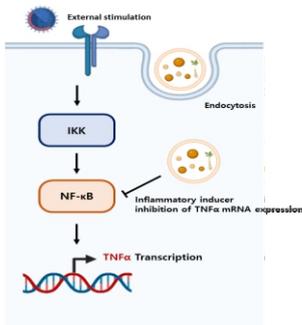


Reduces Oxidative Stress and Activates Skin Cell Function



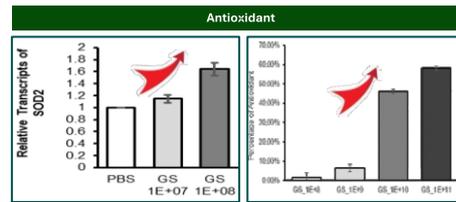
Promotes collagen-elastic cross-linking for resilient and balanced skin

Powerful Anti-Inflammatory Effect Through Inhibition of Inflammatory Mediators



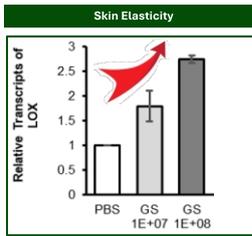
Treatment of skin cells with ginseng exosomes decreased in up to a 20% in p16 expression

- P16: Key genes that induce aging
- Antioxidant: Demonstrated antioxidative performance



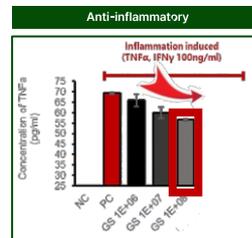
Ginseng exosomes significantly enhanced SOD2 activity, resulting in over 6-fold antioxidant effects in a dose-dependent manner

- SOD2: Anti-oxidant gene
- Improvement in skin elasticity- enhancing firmness and suppleness.



Ginseng exosomes led to over a 2.5-fold increase in LOX expression in skin cell.

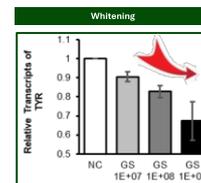
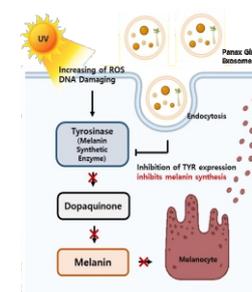
- LOX: Collagen cross-linking enzyme / regulator
- Anti-inflammatory performance, reducing irritation and supporting recovery.



Ginseng exosomes reduced TNF-α levels in treated skin cells. 18 Anti-inflammatory

- TNF-α: Inflammatory induced factor
- Melanin inhibition, aiding in a brighter, more even complexion.

Brightening Effect Through Melanin Inhibition



Ginseng exosomes reduced TYR levels in skin cells by up to 30%, depending on concentration.

- TYR: Melanin synthetic enzyme
- Higher expression levels lead to increased melanin synthesis

## CLINICALLY PROVEN BENEFITS :

- **Anti-aging:** Demonstrated improvement in skin elasticity and firmness.
- **Antioxidant:** Proven antioxidative activity contributing to cellular protection.
- **Anti-inflammatory:** Reduces inflammatory responses for calmer, balanced skin.
- **Cytoprotective:** Lowers cytotoxicity, maintaining cell integrity.
- **Immune support:** Reinforces skin's natural defense capacity.
- **Brightening:** Inhibits melanin production, enhancing skin clarity and radiance.