

BIO TEARS+

New Approach to Moist Your Skin



TEAR AND IT'S FUNCTION IN HUMAN BODY

Tears, the innate immune substance, the lubrication of the eye ballabsorbing oxygen from the air to assist with cornea metabolism, removing corneal metabolic material,cleansing and antibacterial functions.

These days consumers wanting healthy skin for a high quality life are increasing. As the concern of these consumers for fundamental healthy skin care rises, they are increasingly searching for a product that provides skin barrier strengthening functions which keep the epidermis healthy and protect it from stresses and harmful environments.

<The Three Distinct Layers of the Tear Film>

Name	Container	Secretor	Function
Lipid layer	Oils	Meibomian glands	Protects tears from evaporating / Creates a smooth barrier
Aqueous layer	Water, vitamins, salt, other minerals, nutrients	Lacrimal gland	Promotes osmoregulation (salt balance) / Prevents invasion and infection by microbes / Supplies nutrients to the barrier
Mucous layer	Mucin	Conjunctival goblet cells	Helps the tear stay on the eye / Keeps the tissue moisturized and prevents dryness

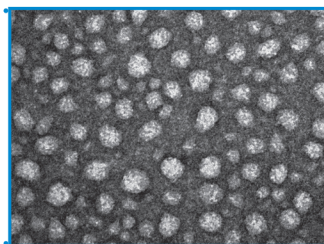
BIO TEARS+ MIMICS THE FUNCTIONS OF TEARS

Component	Efficacy
Sugar Alcohols, Sugar Amino Acid, Organic Acid Mineral, Nucleotide Vitamin, Peptide	Moisturizing Abirritation Revitalizing
Lipid	Shielding
Polysaccharide	Moisturizing

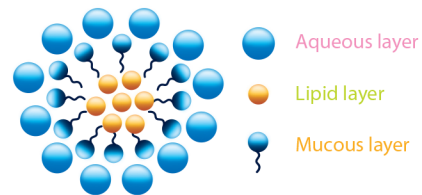
Bio Tears+ helps creating healthy skin by forming a smooth barrier which reinforces the supply of nutrients to the epidermis as well as its moisturizing ability.



EF-TEM IMAGE of Bio Tears+



Energy Filter Transmission Electron Microscope
(Model : LEO 912AB OMEGA)

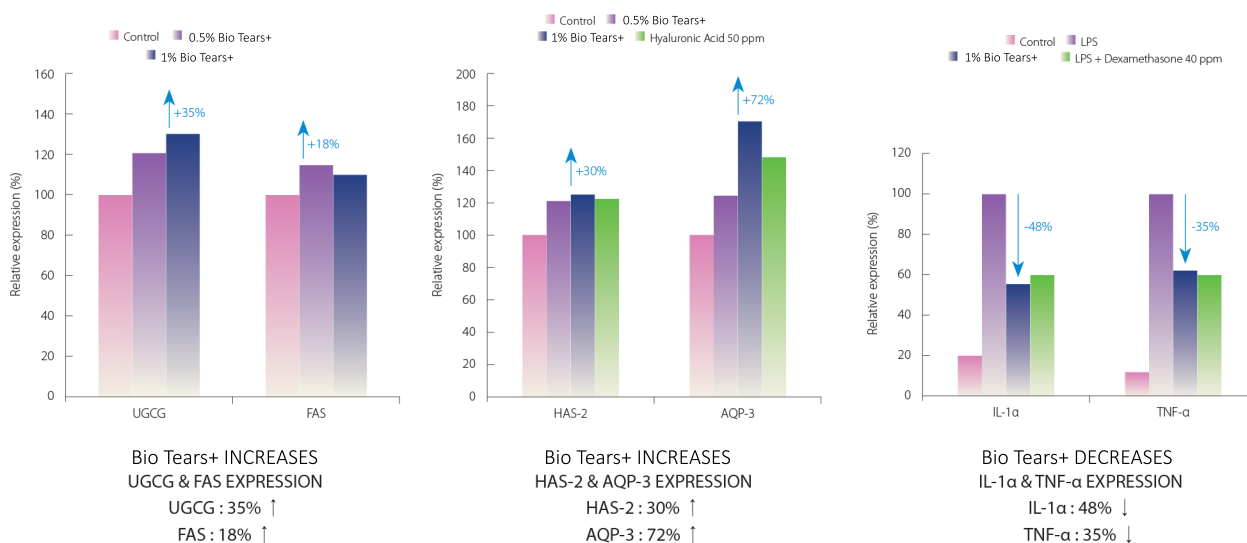


Bio Tears+ was made using Miro DeBEE (high pressure homogenizer) to improve solubility and sense of use.

Bio Tears + helps to build the healthy skin by restoring skin barrier defense system.

1. Bio Tears+ enhances the skin barrier function by restoring epidermal lipids.
2. Bio Tears+ regains the cell activity by reducing inflammatory reaction.
3. Bio Tears+ holds the water balance by increasing moisturising activity.
4. Bio Tears+ protects the epidermal cells against harmful substances.

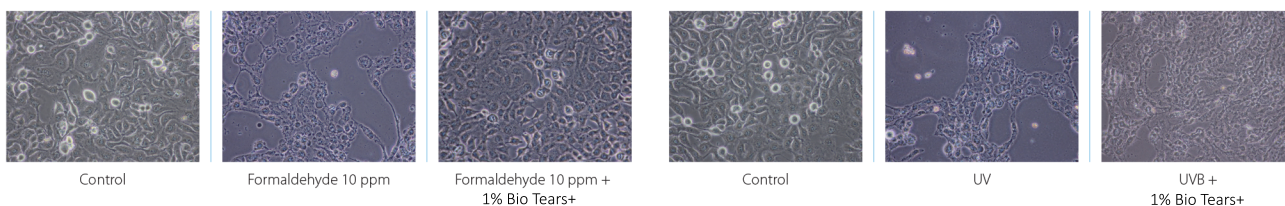
IN-VITRO : Epidermal Lipid Restoration, Hydration, Anti-Inflammation



Bio Tears+ INCREASES
UGCG & FAS EXPRESSION
UGCG : 35% ↑
FAS : 18% ↑

Bio Tears+ INCREASES
HAS-2 & AQP-3 EXPRESSION
HAS-2 : 30% ↑
AQP-3 : 72% ↑

Bio Tears+ DECREASES
IL-1α & TNF-α EXPRESSION
IL-1α : 48% ↓
TNF-α : 35% ↓



Bio Tears+ PROTECTS EPIDERMIS
AGAINST CHEMICAL INJURY

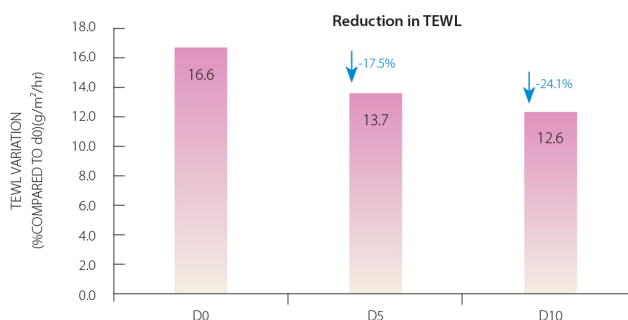
Bio Tears+ PROTECTS EPIDERMIS
AGAINST PHYSICAL INJURY

IN-VIVO : Skin Moisturizing Effect

BIOMIMETIC FLUID TEARS+ DECREASES TEWL ON FACIAL SKIN

Method : Apply 2% Bio Tears+ lotion for 10 days, and evaluate TEWL on forehead with ARAM 200 (*Human Vision System*)

Bio Tears+ decreases TEWL -24.1% on average and up to -48.5%



Cosmetic activities	<ul style="list-style-type: none"> • Restoration effect of epidermal lipids • Anti-inflammatory effect • Stimulation of HAS2 & AQP3 expression • Protection effect of epidermal cells
INCI name	Water (and) 1,2-Hexanediol (and) Glycerin (and) Caprylic/Capric Triglyceride (and) Hydrogenated Lecithin (and) Glucose (and) Arginine (and) Hydroxypropyl Methylcellulose (and) Citric Acid (and) Calcium Carbonate (and) Acetyl Glucosamine (and) Ascorbic Acid (and) Glutathione
Recommended % of use	1% ~