

Instructions

INCI Name	Hydrolyzed Sodium Hyaluronate
Molecular weight	≤5000 Da
Recommended dosage	0.05%~0.5%
Usage	Soluble in water, can be added directly into the water phase.
Application	microHA™ can be added in soothing, repairing products, such as skin care products, oral products, scalp care products, etc..

Reference Formula

Hyaluronic acid soothing & regenerating cream			Hyaluronic acid soothing & repairing gel		
	INCI Name	wt%		INCI Name	wt%
A	Cetearyl Alcohol/Cetearyl Glucoside	3.0	A	Aqua	to 100
	Simmondsia Chinensis (Jojoba) Seed Oil	2.0		Betaine	1.0
	Butyrospermum ParkII (Shea Butter)	2.0		Sodium Hyaluronate (HA-T)	0.1
	Tocopheryl Acetate	0.5		Butylene Glycol	3.0
	Squalane	2.0		Glycerin	3.0
	Dicaprylyl Carbonate	2.0	B	Acrylates/C10-30 Alkyl Acrylate Crosspolymer (Carbopol Ultrez 21)	0.5
	Caprylic/Capric Triglyceride	6.0		Aqua	5.0
	Cyclomethicone	2.0		C	Aminomethyl Propanol
B	Butylene Glycol	4.0	Glyceryl/Glyceryl Acrylate/Acrylic Acid Copolymer/Propanediol/PVM/MA Copolymer		2.0
	Glycerin	4.0	Hydrolyzed Sodium Hyaluronate (microHA™)		0.1-0.2
	Sodium Hyaluronate (HA-T)	0.05-0.1	Panthenol		0.5
	Ammonium Acryloyldimethyltaurate/Beheneth-25 Methacrylate Crosspolymer	0.3	Hexylene Glycol		1.5
	Aqua	to 100	Ethylhexylglycerin	0.1	
C	Hydrolyzed Sodium Hyaluronate (microHA™)	0.1-0.2			
	Phenoxyethanol/ Ethylhexylglycerin	0.8			
	Fragrance	0.1			



microHA™

Super Active Hyaluronic Acid

Anti-inflammatory & Repairing

Inhibits the release of inflammatory cytokines and scavenges free radicals

Repairs skin cell damage and accelerates tissue healing

Promotes keratinocytes proliferation and enhances skin barrier function



让每个生命都是鲜活的
CREATIVE TECHNOLOGY FOR VIBRANT LIFE

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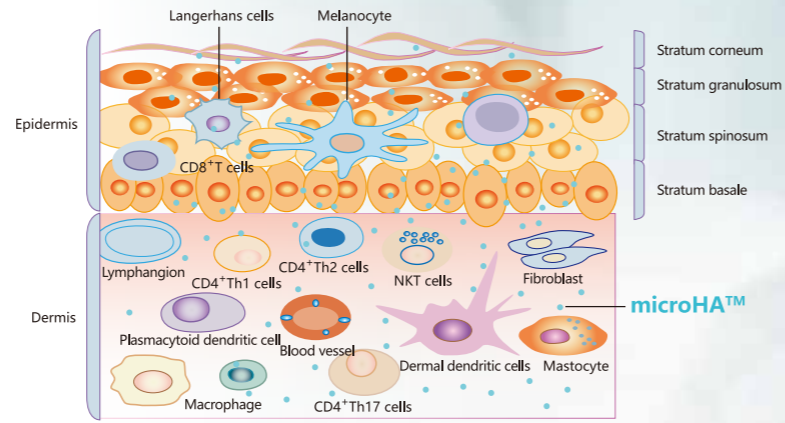


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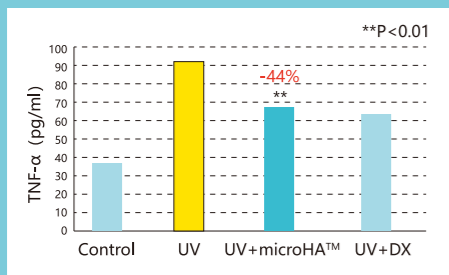
microHA™ Super Active Hyaluronic Acid

microHA™ is a super active HA produced by a patent enzymatic degradation technology with superb biological activity. microHA™ can quickly penetrate epidermis and dermis to scavenge free radicals, reduce inflammation factor activity, repair damaged cells, protect the skin against inflammation and sensitivity caused by various stimulus.



microHA™-Anti-inflammation

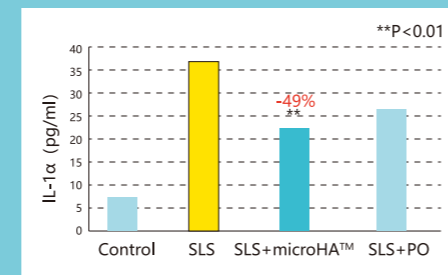
1 Inhibition of TNF-α release



Compared to the positive control group (+UV), microHA™ can significantly reduce the release of inflammatory factors (TNF-α) ($p < 0.01$); the inhibition rate is as high as 44%. The inhibition effect of 0.125% microHA™ was comparable to that of 0.01% dexamethasone.

microHA™ (0.125%, m/v), Dexamethasone (DX, 0.01%, m/v), test model: "UVB-kertinocytes"
Test by Guangdong BioCell Biotechnology Co. Ltd.

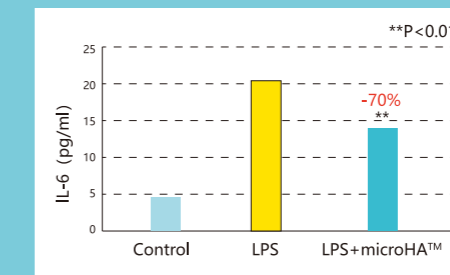
2 Inhibition of IL-1α release



Compared to SLS group, microHA™ can significantly reduce IL-1α release level ($p < 0.01$); the inhibition rate is as high as 49%. Moreover, the inhibition effect on IL-1α was better than 0.25% PO.

microHA™ (0.125%, m/v), Portulaca Oleracea Extract (PO, 0.25%, m/v), test model: "SLS-Epikutis"
Test by Guangdong BioCell Biotechnology Co. Ltd.

3 Inhibition of IL-6 release



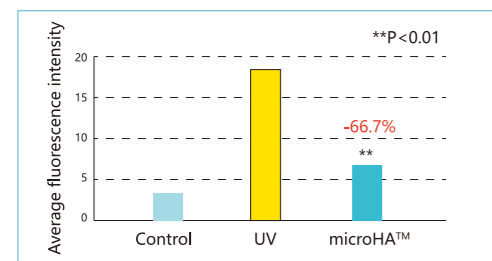
Compared to LPS (Lipopolysaccharide) group, microHA™ can significantly reduce IL-6 release level ($p < 0.01$); the inhibition rate is as high as 70%.

microHA™ (0.4%, m/v), test model: "LPS-Balbc 3T3"

microHA™-Repairing

1 Scavenging oxygen free radicals

When stimulated, the skin cells produce large amount of oxygen free radicals, causing inflammation, thus resulting in skin damage and color spots. microHA™ can effectively remove the UV-induced reactive oxygen free radicals and reduce the inflammatory response. microHA™ could reduce the average fluorescence intensity by 66.7%.

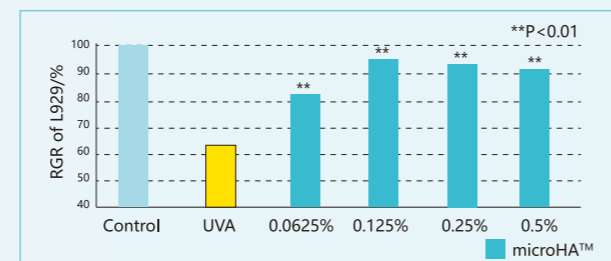


microHA™ (0.1%, m/m), test model: "UVA-L929"

2 UV-damaged repairing

Repairing UVA-damaged fibroblast cells

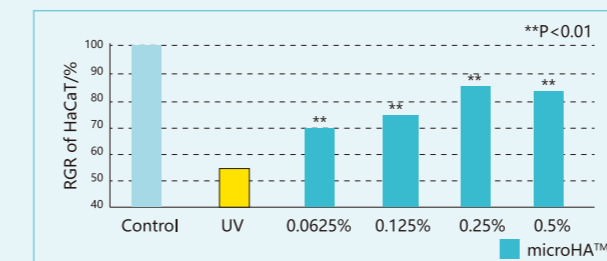
Results show that after UVA irradiation, RGR (relative growth rate) of L929 cells fell to 63%. With the addition of microHA™, the cell proliferation rate increased significantly; 0.125% microHA™ can make the cell proliferation rate increase up to 94%.



microHA™ (0.0625%-0.5%, m/m), test model: "UVA-L929"

Repairing UV-damaged keratinocytes

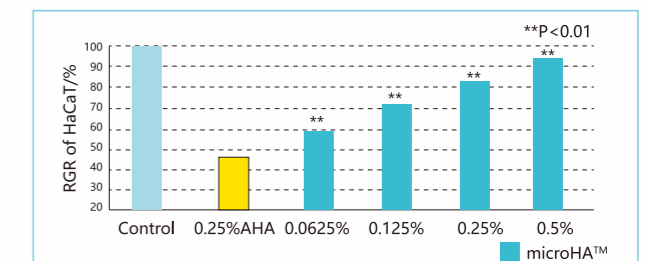
Results show that after UVA&UVB irradiation, RGR of HaCaT cells fell to 54%. With the addition of microHA™, the cell proliferation rate increased significantly; 0.25% microHA™ can make the cell proliferation rate increase up to 84.7%.



microHA™ (0.0625%-0.5%, m/m), test model: "UV-HaCaT"

3 Chemical damage repairing

Results show that after adding AHA, RGR of HaCaT cells fell to 46%. With the addition of microHA™, the cell proliferation rate increased significantly; 0.5% microHA™ can make the cell proliferation rate increase up to 95%.



microHA™ (0.0625%-0.5%, m/m), test model: "AHA-HaCaT"