



Anti-Aging

Anallerg[®]—Retinol



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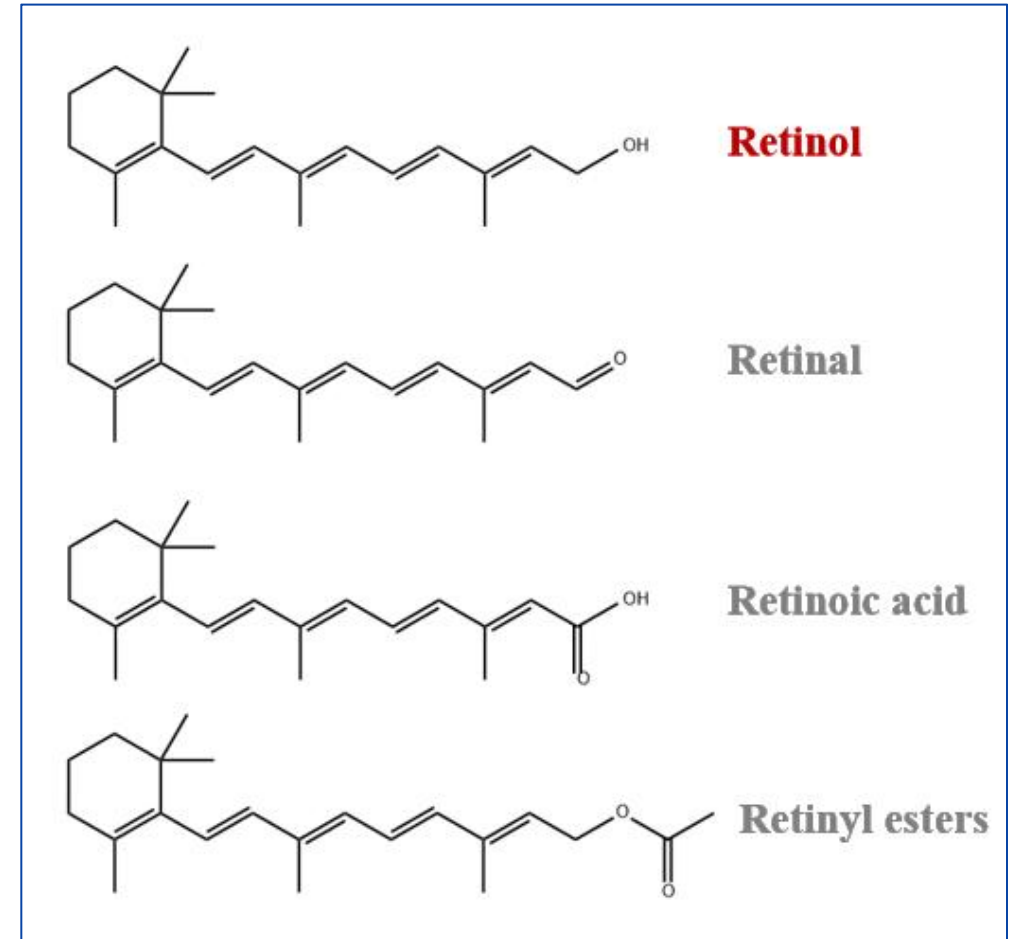
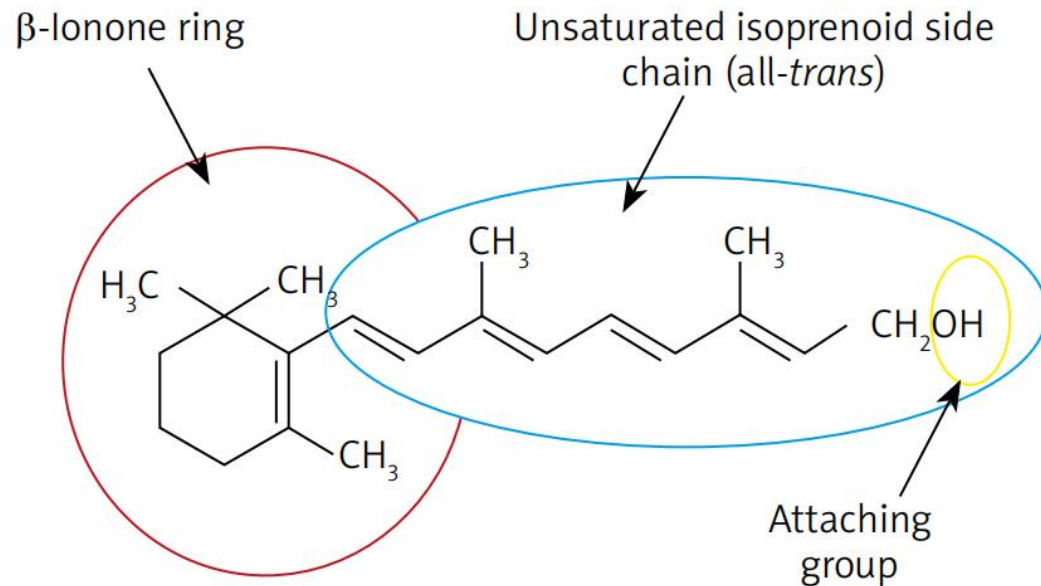
Part 01

Anallerg[®]--Retinol

Vitamin A

Retinol

- Vitamin A is a fat-soluble vitamin that is essential for humans and other vertebrates.



Retinol


Best Anti-Aging Skin Care Ingredients



- **Retinol** is one of the most used and most well-studied anti-aging ingredients on the market.
- Retinol is a standard ingredient with amazing powers:
 - ✓ Anti-aging
 - ✓ Anti-acne
 - ✓ Thicker skin
 - ✓ Newer, brighter, and more even-toned skin

Anallerg[®] -- Retinol

Crystal powder

Anallerg[®]--Retinol The Trademarked Product Name: Pure-origin[®]	
INCI	Retinol
CAS	68-26-8
Appearance	Light yellow to yellow crystal powder
Odor	Characteristic odor
Retinol Purity	>99%
Certification	 ECOCERT
Award	2022 PCHi Fountain Award

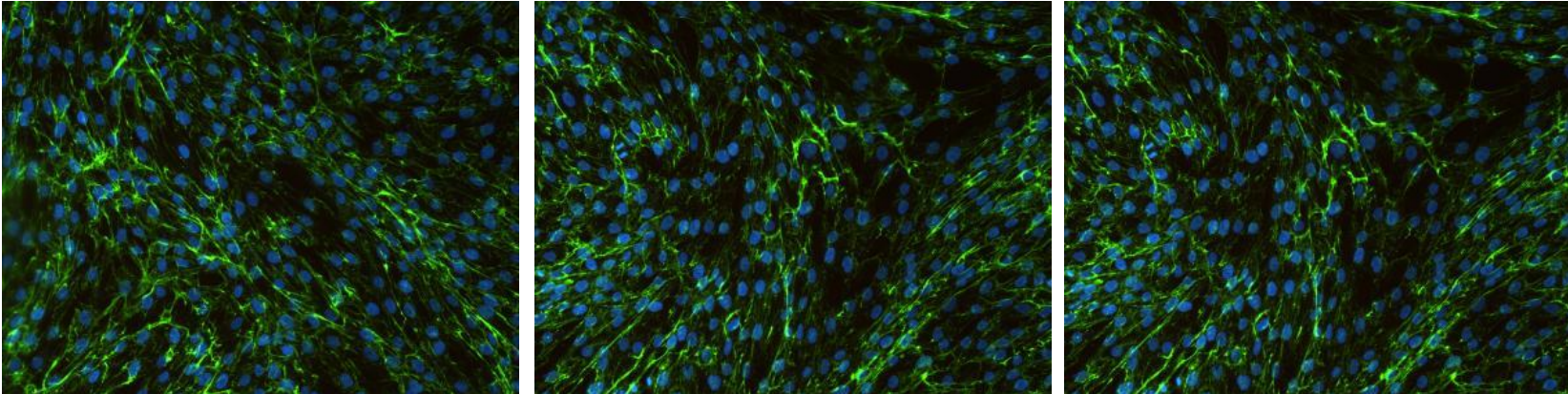
High Purity, premium quality, ton-scale production, reliable supply

Anallerg[®] -- Retinol

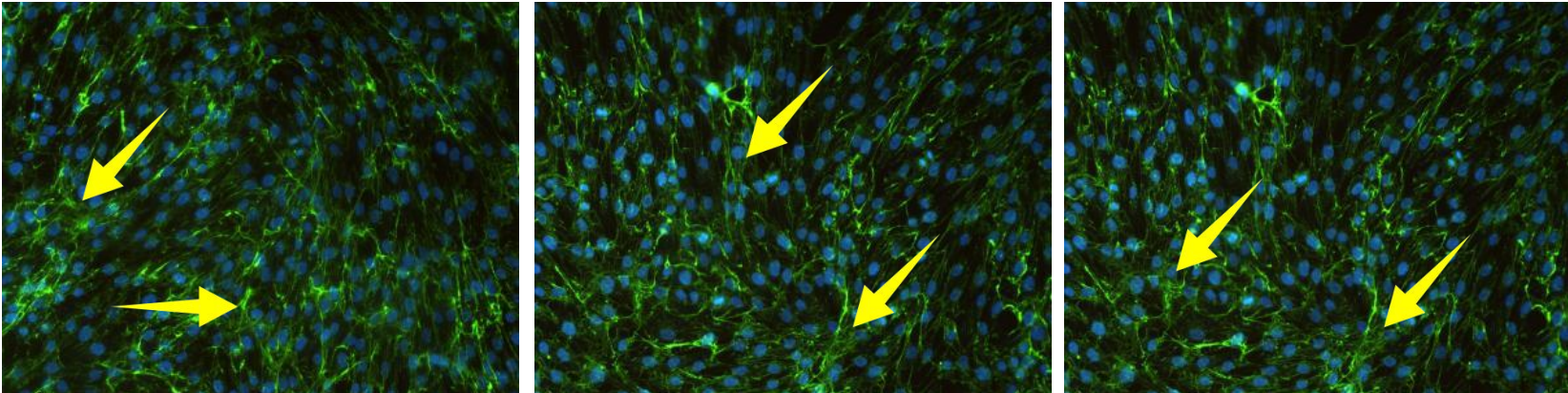
Promotes the synthesis of type I collagen in fibroblasts



Control



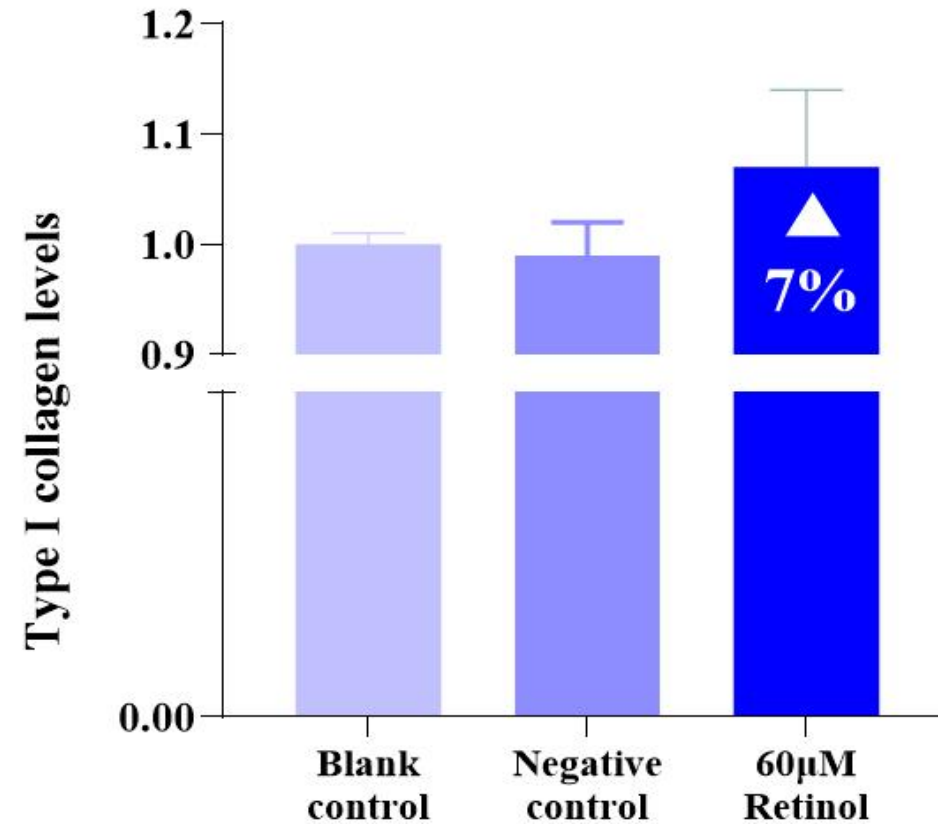
60 μ M
Retinol



After treating fibroblasts with Anallerg[®]--Retinol , the **type I collagen** increased

Anallerg[®] -- Retinol

Promotes the synthesis of type I collagen in fibroblasts



Anallerg[®]--Retinol can promote the synthesis of type I collagen

The data is sourced from third-party testing agencies

Anallerg[®] -- Retinol

Clinical trial on human skin

- 32 participants continuously used the facial cream (contains 0.1% **Anallerg[®] -- Retinol**) for 28-days.

◆ Improving elasticity and firmness

- ✓ R2 value - Cutometer MPA580
- ✓ R7 value - Cutometer MPA580
- ✓ Q1 value - Cutometer MPA580
- ✓ F4 value - Cutometer MPA580

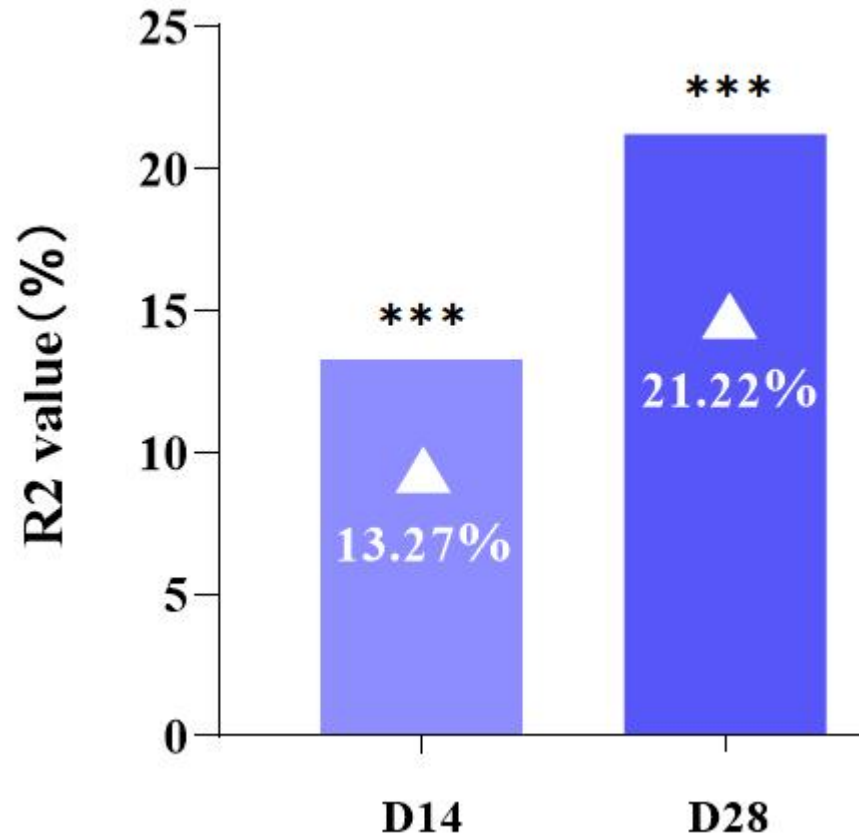
◆ Anti-wrinkle

- ✓ Crow's feet wrinkles - Image-Pro-Plus
- ✓ Under-eye wrinkles - Image-Pro-Plus

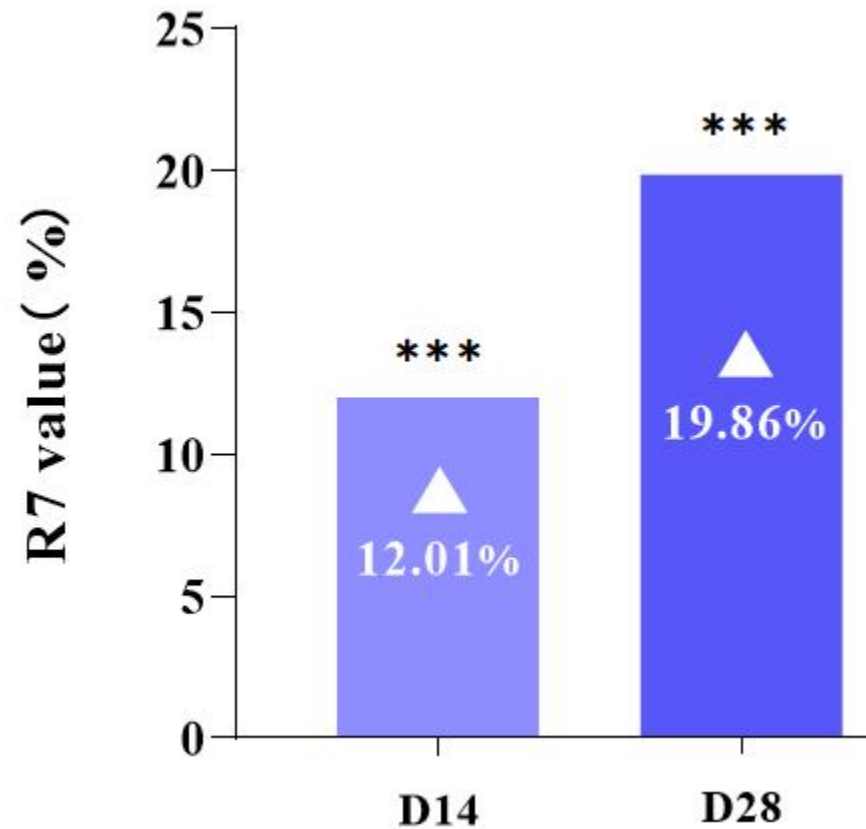
Anallerg[®] -- Retinol

Clinical trial on human skin

R2 value



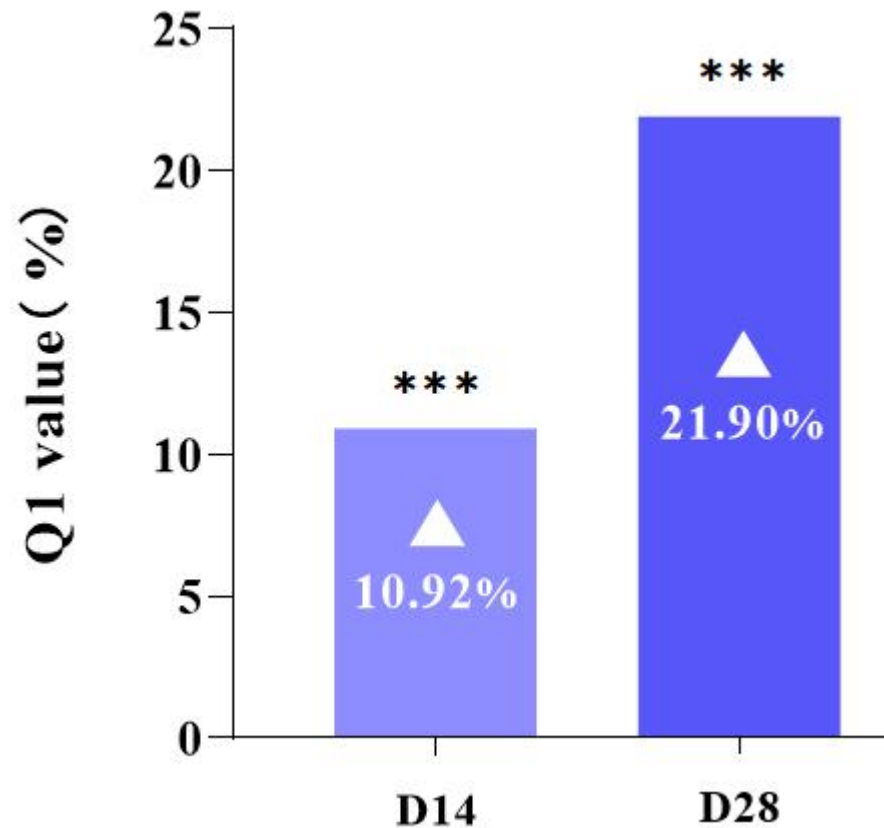
R7 value



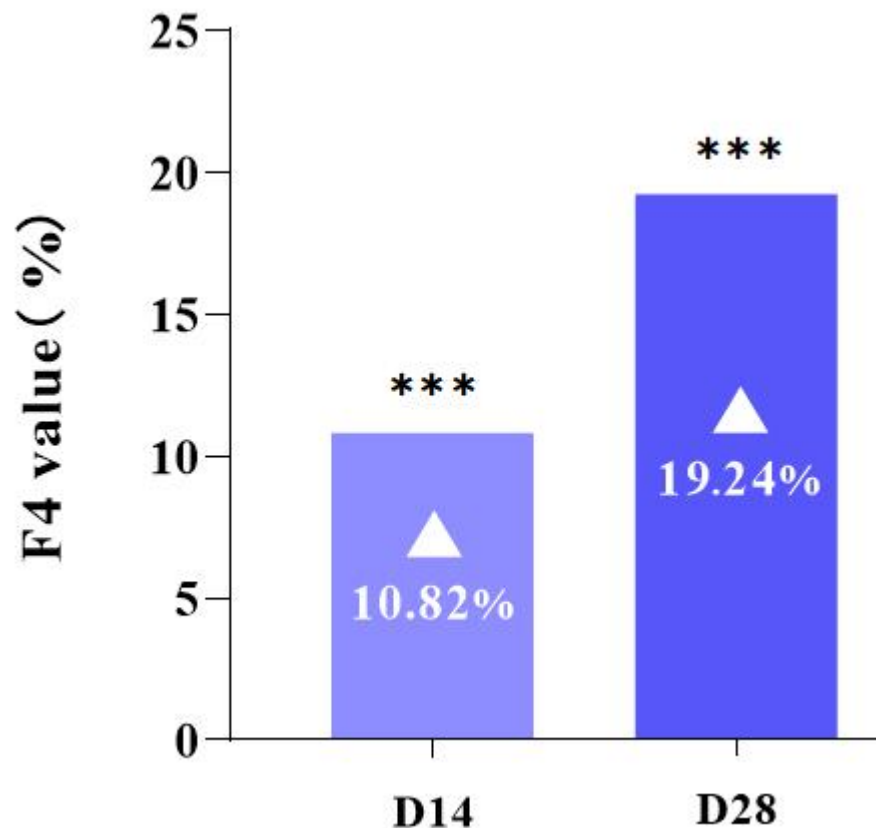
Anallerg[®] -- Retinol

Clinical trial on human skin

Q1 value



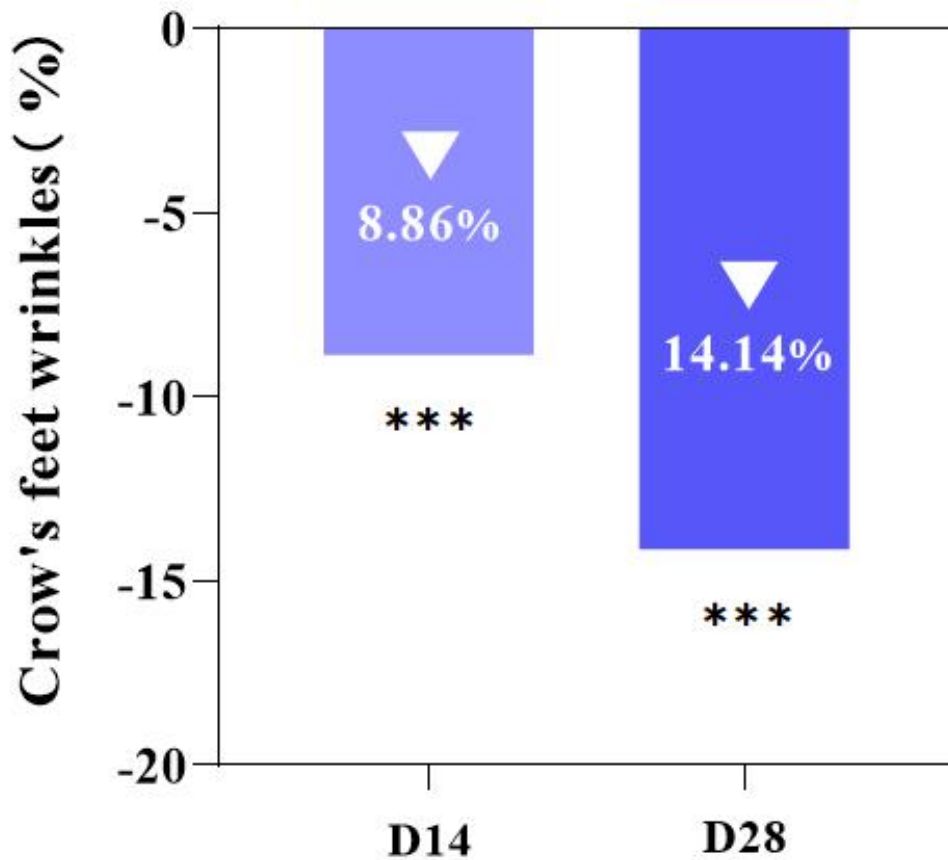
F4 value



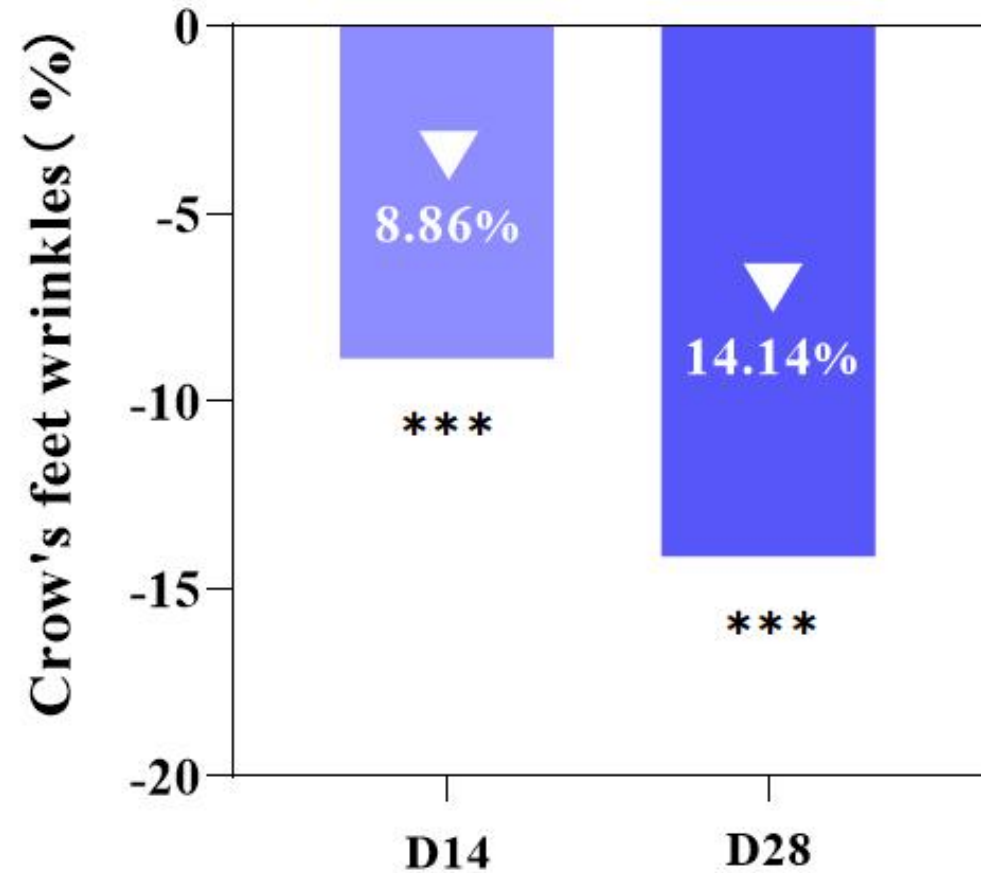
Anallerg[®] -- Retinol

Clinical trial on human skin

Crow's feet wrinkles



Under-eye wrinkles



The data is sourced from third-party testing agencies

Anallerg[®] -- Retinol

Clinical trial on human skin

Before

After 14 days

After 28 days



Wrinkles significantly reduced after 14 and 28 days of using Anallerg[®]--Retinol

The data is sourced from third-party testing agencies

Anallerg[®] -- Retinol

Clinical trial on human skin

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After 28 days



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Anallerg[®] -- Retinol

Clinical trial on human skin

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Wrinkles significantly reduced after 14 and 28 days of using **Anallerg[®]--Retinol**

Anallerg[®] -- Retinol

Clinical trial on human skin

Before

After 14 days

After 28 days



Wrinkles significantly reduced after 14 and 28 days of using **Anallerg[®]--Retinol**

Anallerg[®] -- Retinol

Clinical trial on human skin

Before

After 14 days

After 28 days

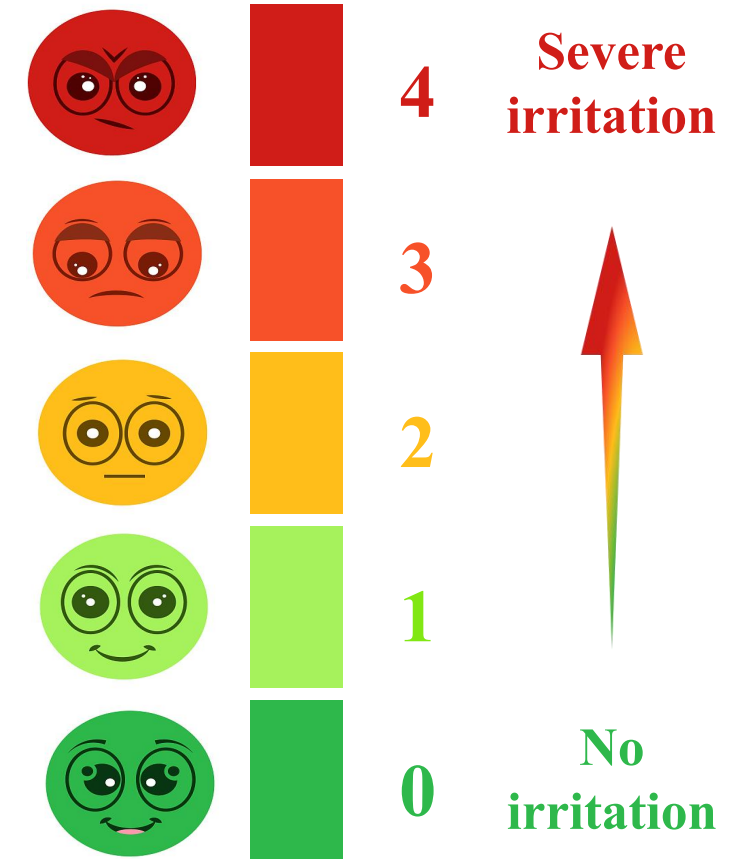


Wrinkles significantly reduced after 14 and 28 days of using **Anallerg[®]--Retinol**

Anallerg[®] -- Retinol

The human skin patch test

Group	Number of subjects	Time	Number of subjects with different skin reactions in patch test				
			0	1	2	3	4
0.3% Anallerg[®] -- Retinol	30 people	0.5h	30	0	0	0	0
		24h	30	0	0	0	0
		48h	30	0	0	0	0



Visual quantification of skin reactions scores

Anallerg[®]--Retinol is highly safe

Part 02

Innovative Upgraded

Anallerg® -- Retinol

Application Difficulties

Oil-Soluble Vitamin Oil-soluble vitamin, insoluble in water	Instability Extremely sensitive to light, temperature, and oxygen	Operational Inconvenience Production processes must be isolated from oxygen, water, and UV
Irritating Pure retinol is more likely to irritate the skin	Discoloration Pure retinol tends to cause formulations to turn yellow	Penetration and Absorption Pure retinol has poor skin absorption and low bioavailability

Innovative Upgraded Retinol Solutions Addressing Stability and Application Challenges!

Anallerg[®] -- Retinol -50C

50% Retinol Solution

Ingredients	
Retinol	42.75-49.5%
Polysorbate-20	45.90-53.20%
BHT	3.15-3.50%
BHA	0.90-1.10%

Protective agents / Antioxidants

High-concentration retinol solution: More stable !

Anallerg[®] -- Retinol -50A

50% Retinol Solution

Ingredients	
Retinol	45.0-50.0%
Tocopheryl acetate	15.0-25.0%
Caprylic/capric triglyceride	25.0-30.0%

High-concentration retinol solution: Suitable for **oil-based formulations**

Anallerg® -- Retinol -10C

10% Retinol microemulsion

Source:

A new microemulsion prepared using encapsulation technology based on **Anallerg®** -- Retinol-50C.

Encapsulation Technology:

- **Precise Release:** Encapsulated active substances ensure efficient release.
- **Superior Absorption:** Cell membrane-like structure optimizes absorption and interaction.
- **Soothing Care:** Ceramide-like structure soothes and reduces skin irritation.



Anallerg® -- Retinol -10C

10% Retinol microemulsion

Ingredients	
Retinol	8.5-10.0%
Polysorbate-20	8.0-10.0%
Polyglyceryl-10 myristate	0.1-0.8%
Ethyl lauroyl arginate hcl	0.1-0.6%
Glycerin	5.0-15.0%
Caprylic/capric triglyceride	10.0-30.0%
BHT	0.1-1.0%
BHA	0.1-0.5%
Water	40.0-50.0%

Microemulsion: **Easier application** and **optimized skin absorption**

Anallerg[®] -- Retinol -10A

10% oil solution

Ingredients	
Retinol	8.0-10.0%
Tocopheryl acetate	35.0-45.0%
Caprylic/capric triglyceride	45.0-55.0
BHT	0.1-1.0%

Oil Solution: Suitable for **oil-based formulations** and **enhanced stability**

Anallerg[®] -- Retinol -10B

10% oil solution

Ingredients	
Retinol	8.0-10.0%
Tocopheryl acetate	35.0-45.0%
Caprylic/capric triglyceride	45.0-55.0

Oil solution: Suitable for **oil-based formulations**

Summary



Product	Specifications	Composition
Anallerg[®]--Retinol (Pure-origin [®])	99.5% Crystal powder	Retinol
Anallerg[®]--Retinol-50C	50% Retinol solution	Retinol, polysorbate-20, BHA, BHT
Anallerg[®]--Retinol-50A	50% Retinol solution	Retinol, tocopheryl acetate, caprylic/capric triglyceride
Anallerg[®]--Retinol-10C	10% Retinol microemulsion	Retinol, ethyl lauroyl arginate hcl, polyglyceryl-10 myristate, BHT, BHA, polysorbate 20, water, caprylic/capric triglyceride, glycerin
Anallerg[®]--Pure-origin[®]-10A	10% Retinol oil solution	Retinol, tocopheryl acetate, caprylic/capric triglyceride, BHT
Anallerg[®]--Pure-origin[®]-10B	10% Retinol oil solution	Retinol, tocopheryl acetate, caprylic/capric triglyceride

Comparison

	Retinol (Pure-origin®)	Retinol-50C	Retinol-50A	Retinol-10C	Retinol-10A	Retinol-10B
Good	<ul style="list-style-type: none"> ✔ Crystal powder ✔ Purity > 99.0% ✔ COSMOS 	<ul style="list-style-type: none"> ✔ High concentration ✔ Improved stability 	<ul style="list-style-type: none"> ✔ High concentration ✔ No BHA / BHT 	<ul style="list-style-type: none"> ✔ Microemulsion ✔ Improved Absorption ✔ Easier application 	<ul style="list-style-type: none"> ✔ For oil-based formulations ✔ Improved stability 	<ul style="list-style-type: none"> ✔ For oil-based formulations ✔ No BHA / BHT
Bad	<ul style="list-style-type: none"> • Unstable • Inconvenient application 	<ul style="list-style-type: none"> • BHA / BHT • Low-temperature might lead to crystallization • Not for oil-based formulations 	<ul style="list-style-type: none"> • Less Stable than 50C • Low-temperature might lead to crystallization 	<ul style="list-style-type: none"> • Not for oil-based formulations 	<ul style="list-style-type: none"> • BHT 	<ul style="list-style-type: none"> • Less Stable than 10A

- **BHA:** Classified by IARC as Group 2B and listed on California Proposition 65.
- **BHT:** EWG VERIFIED products cannot contain this ingredient.

Part 03

Application Guidelines

Solubility of **Anallerg**[®] -- Retinol

Solubility of **Anallerg**[®] -- Retinol in different solvents at different temperatures (10%)

Solvent	4°C	25°C	45°C	-18°C
Dimethyl isosorbide	√	√	√	×
Diisopropyl adipate	√	√	√	×
Caprylic/capric triglyceride	×	√	√	×
Isopropyl myristate	×	√	√	×
Dicaprylyl carbonate	×	√	√	×
Diethylhexyl carbonate	×	√	√	×
Triethylhexanoin	×	√	√	×
Diisooctyl adipate	×	√	√	×
Squalane	× ×			
Pentaerythrityl tetrastearate	× ×			

Note: “√” indicates soluble; “×” indicates prone to precipitation; “× ×” indicates insoluble.



Formula Recommendations

- **Antioxidants:** BHT, tocopherol, and tocopheryl acetate, with a preference for BHT.
- **Chelating agents:** disodium EDTA.
- **UV protectants:** diethylhexyl Syringylidenemalonate.
- **Soothing and repairing ingredients:** dipotassium glycyrrhizate, oat extract, and ceramide NP.
- **Formula pH:** 4.5 ~ 6.0.
- Suitable for formulations like **serums, facial oils, lotions, and creams**. Avoid using in low-viscosity serums or aqueous formulations.
- **Oil-based formulations** are preferred.



Packaging and Storage

- Stored away from light and refrigerated.
- After use, seal tightly to avoid exposure to air and moisture.
- Use sealed, opaque vacuum materials, such as opaque vacuum bottles.
- Products should be in small capacities, like 10mL or 15mL.
- Use promptly after opening.



Production Process

- Add retinol at a low temperature stage (**below 40°C**) and mix thoroughly.
- **Using encapsulation forms** such as liposomes, microemulsions, vesicles, etc., helps enhance its stability.
- If feasible, introduce **inert gases** (argon or nitrogen) during production and filling processes.



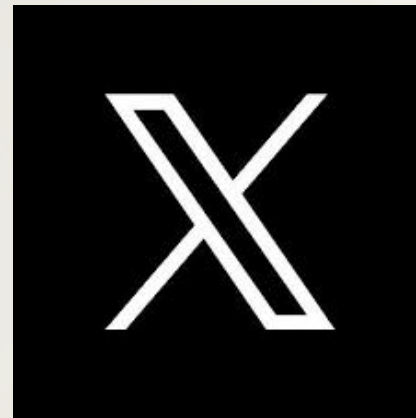
Anallerg[®] / EffeMIX[®]



Website



Whatsapp



@CoachchemINSH



@coachcheminsh

