

Adapinoid®  
U.S. Patent No. 12,133,907



ultra gentle pro-adapalene

Actera

Adapinoid® is the only third generation retinoid for cosmetic use. This novel active is a precursor of adapalene which is proven to increase collagen, reduce photoaging, balance skin tone, soothe inflammation, reduce pores, and clear acne-prone skin. Unlike first generation retinoids (vitamin A types like retinol and retinoic acid), Adapinoid has far fewer toxicity, stability, and skin-irritation concerns. Clinically tested to be superior to retinol with 2x greater wrinkle reduction, 10x greater redness reduction, and 70x greater TEWL reduction.

## INCI

Oleyl Adapalenate

## Physical Description

Off-white powder

## Formulation Benefits

- Oil-Soluble: Easy to formulate without ethanol or solvents
- Inherently Stable: No need for expensive airless packaging, nitrogen blanket filling, restricted storage conditions, or anti-oxidants to preserve efficacy or color
- Widely Recognized: Accepted by dermatologists and consumers, without the regulatory hassle of an API drug

## Guidelines

- Suggested use level: 0.16 - 0.5% minimum
- Add to oil phase and heat to 80°C. Mix until homogenous.

## Applications

- Serums
- Moisturizers
- Treatment products

## Enzymatic Release of Active Adapalene



### Smart Delivery System

Bio-transforms with the skin's own enzymes to slowly release active adapalene into the skin layers

### Targets Inflammaging

Adapalene is proven to inhibit the inflammatory pathways related to lipoxygenase (5-LOX and 15-LOX) activity in the skin compared to typical retinoids. Protective effect helps soothe skin, reduce redness, even skin tone, and reduce inflammation-related causes of aging

### Clinical Efficacy Without Irritation

Considerably more gentle than traditional retinoids which are known to cause redness, itching, flaking, and stinging

### Multi-action Skin Perfecting

Tackles both aging and acne

# Adapinoid<sup>®</sup> vs. Retinol

Dr. Raja Sivamani, MD, Board Certified - Dermatology, Principal Investigator  
Director of Clinical Research, University of California, Davis

## Superior to retinol in head-to-head anti-aging

- Double blind, randomized
- 0.5% Adapinoid vs. 0.5% retinol
- 39 male & female subjects
- Ages 35-64
- 12 weeks, once daily use (PM)

### Adapinoid<sup>®</sup>



### Retinol



### Adapinoid<sup>®</sup>



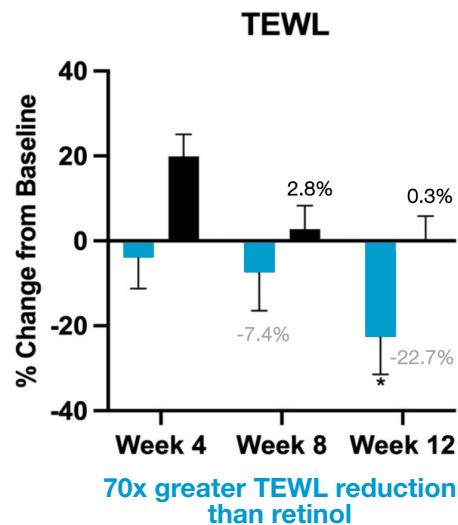
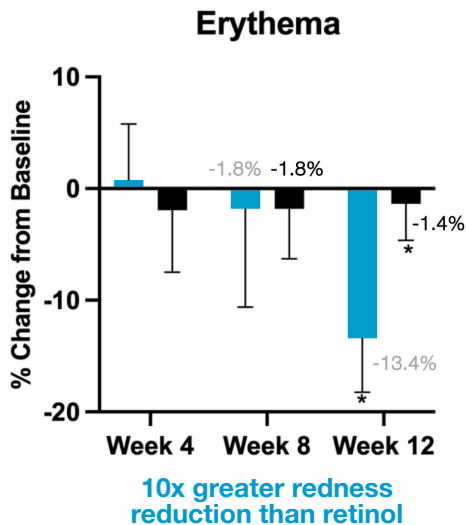
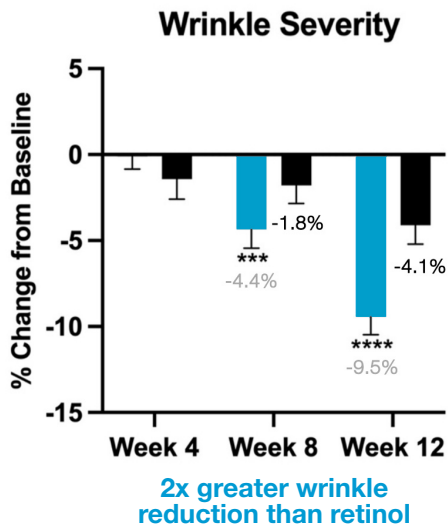
### Retinol



Global Redness Reduction

# Clinical Results

■ Adapinoid®   ■ Retinol



## Superior to retinol in tolerability

**Zero** reports of severe irritation after 4 weeks

**Zero** reports of moderate irritation after 4 weeks

**60%** fewer reports of mild irritation after 8 weeks

	Adapinoid Group				Retinol Group			
	None 0	Mild 1	Moderate 2	Severe 3	None 0	Mild 1	Moderate 2	Severe 3
<b>Week 4</b>								
Itching	91%	9%	0%	0%	82%	14%	5%	0%
Burning	86%	14%	0%	0%	55%	32%	9%	5%
Stinging	91%	9%	0%	0%	68%	23%	5%	5%
Scaling	82%	18%	0%	0%	59%	36%	5%	0%
Redness	95%	5%	0%	0%	55%	32%	9%	5%
<b>Week 8</b>								
Itching	100%	0%	0%	0%	84%	16%	0%	0%
Burning	100%	0%	0%	0%	84%	16%	0%	0%
Stinging	100%	0%	0%	0%	89%	11%	0%	0%
Scaling	80%	20%	0%	0%	84%	16%	0%	0%
Redness	95%	5%	0%	0%	74%	26%	0%	0%
<b>Week 12</b>								
Itching	100%	0%	0%	0%	89%	11%	0%	0%
Burning	95%	5%	0%	0%	79%	21%	0%	0%
Stinging	100%	0%	0%	0%	84%	16%	0%	0%
Scaling	90%	10%	0%	0%	79%	21%	0%	0%
Redness	100%	0%	0%	0%	74%	21%	5%	0%

# Actera

clean + active



## Refiner

Formulation #06-28

Ultra-clean formula featuring third generation retinoid, **Adapinoid®**. This adapalene delivery system is clinically proven to increase collagen, reduce photoaging, balance skin tone, decrease the appearance of pores, and clear acne-prone skin. Emulsified with **TeraTexture™**, an all-in-one thickener, texturizer, and emulsifier made from novel vegetable protein technology. Preserved with **TeraStat™ N**, a gentle and natural broad-spectrum preservative.

Phase	INCI	Trade Name	%
A	Deionized Water		Q.S.
	Pisum Sativum Peptide (and) Sodium Stearoyl Lactylate (and) Xanthan Gum (and) Trisodium Citrate (and) Magnesium Stearate	<b>TeraTexture™</b>	3.0
	Glycerin		5.0
	Caprylyl Glyceryl Ether (and) Caprylhydroxamic Acid (and) Propanediol	<b>TeraStat™ N</b>	2.0
	Helianthus Annuus (Sunflower) Seed Oil		5.0
B	Squalane		5.0
	Oleyl Adapalenate	<b>Adapinoid®</b>	0.5
C	Citric Acid OR Sodium Hydroxide		QS pH ~ 5.5
Total			100.0

### Procedure

1. Add water into the main vessel. Sift in TeraTexture under high shear propeller mixing. Continue to mix until uniform and clump-free.
2. Add the remainder of Phase A ingredients, mix until uniform. Heat to 80-85°C.
3. In a separate vessel, combine Phase B ingredients. Heat to 80-85°C and mix until uniform.
4. Add Phase B to Phase A at the same temperature under high shear propeller mixing. Start cooling.
5. Once at RT, adjust pH using Phase C.

### Physical Properties

pH = 5.5      Viscosity = 6,920 cP      Appearance: Semi-viscous off-white emulsion

### Stability

Passed 12 weeks at RT and 40°C and 3 cycles F/T  
Passed 1 year at RT

### Use Instructions

Apply liberally twice daily or as needed to clean face and neck.

### Intended packaging

Pump or dropper bottle

### \*Clinical Results

- Proven to reduce appearance of wrinkles, pores, and redness in an 8 week study
- 100% of women agreed the product was gentle on skin
- 92% of women noticed a softer, smoother complexion
- 85% of women agreed overall appearance of skin was improved

*Efficacy claims based on home-use study with 13 female subjects with self-assessed wrinkles, pores, and redness*

# Actera

66 Walker Lane • Newtown, PA 18940 • USA

+1 (215) 525-4564

acteraingredients.com