

Actives

PRODUCT DOSSIER

QUINOSINE+™

READ MORE

<https://actives.beauticslab.tech>

MAY 2026

VERSION 1.01

BEAUTICS
LABORATORIES

PRODUCT DATA SHEET (PDS)

QUINOSINE+™ (Adenosine + PQQ Complex)

A Next-Generation Mitochondrial & Energy Support System for Hair Follicle Optimization

1. What Is QUINOSINE+™?

QUINOSINE+™ is an advanced bio-energetic follicular activation complex combining **Adenosine** and **Pyrrroloquinoline Quinone (PQQ)**, designed to target cellular energy metabolism at the follicular level. This synergistic system enhances mitochondrial performance, stimulates anagen phase induction, and supports sustained hair growth through improved ATP production and cellular signaling.

2. Active Components & Mechanisms

2.1 Adenosine

INCI: Adenosine

MECHANISM OF ACTION

- Activates **A₂A receptors** in dermal papilla cells
- Promotes **anagen phase induction**
- Enhances expression of growth factors (e.g., VEGF, FGF)
- Improves microcirculation around follicles

BIOLOGICAL EFFECTS

- Stimulates hair shaft elongation
- Increases follicular size
- Extends growth cycle duration

2.2 Pyrroloquinoline Quinone (PQQ)

INCI: Pyrroloquinoline Quinone

MECHANISM OF ACTION

- Induces **mitochondrial biogenesis** via PGC-1 α activation
- Enhances **electron transport chain efficiency**
- Reduces oxidative stress within follicular cells
- Improves **ATP synthesis capacity**

BIOLOGICAL EFFECTS

- Increases cellular energy output
- Protects follicles from metabolic stress
- Supports long-term follicle viability

PRODUCT DATA SHEET (PDS)

3. Synergistic Mechanism of QUINOSINE+™

QUINOSINE+™ operates through a dual-action pathway:

COMPONENT	PRIMARY ROLE	OUTCOME
ADENOSINE	Signal activation (A ₂ A receptor)	Initiates anagen phase
PQQ	Mitochondrial enhancement	Sustains energy production

Combined Effect:

- Immediate activation of growth signaling
- Sustained ATP availability for prolonged follicle activity
- Enhanced metabolic efficiency of dermal papilla cells

Result:

A powerful **cellular energy amplification system** that both triggers and maintains hair growth.

4. Recommended Use Levels

INGREDIENT	CONCENTRATION
QUINOSINE+™	0.5-1%

5. Pharmaceutical Characterization

PARAMETER	SPECIFICATION
ACTIVE COMPOSITION	Adenosine 90%
	PQQ 10%
SYSTEM TYPE	Bioenergetic + signaling complex
SOLUBILITY	Water-soluble
STABILITY	pH 5.0 – 7.0 (optimal)
MOLECULAR TARGETS	Mitochondria, A2A receptors

PRODUCT DATA SHEET (PDS)

6. Role in Cosmetic Formulations

Cellular Energy Amplifier

Key Benefits

- Extends anagen phase duration
- Enhances follicular metabolic output
- Improves hair density and thickness
- Supports scalp vitality and resilience

7. Formulation Considerations

7.1 Handling

- Add sensitive actives in cool-down when necessary
- Protect redox-sensitive materials from excessive heat and oxidation
- Use suitable antioxidant support if needed

7.2 Compatibility

- Works synergistically with:
 - Niacinamide
 - Caffeine
 - Peptides (e.g., copper peptides)
 - Zinc PCA

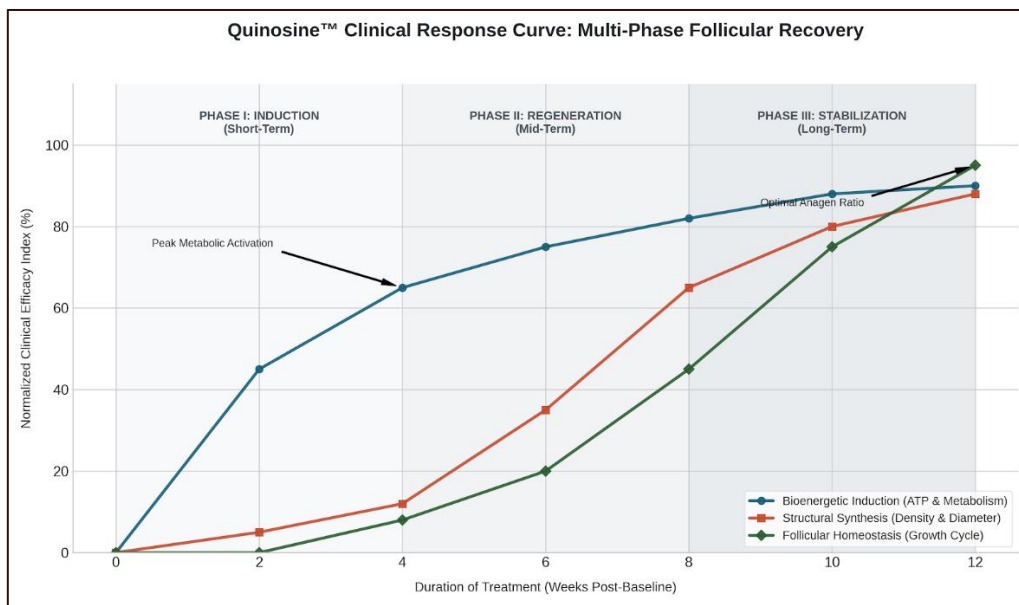
8. Application Formats

APPLICATION / USE CASE	QUINOSINE+™ BLEND (%)	PRIMARY BENEFIT
DAILY SCALP SERUM	0.8-1.0%	Hair loss maintenance / ongoing treatment
PROFESSIONAL AMPOULE	0.8-1.0%	Clinical scalp treatment / mesotherapy support
SPRAY MIST	0.5-0.7%	Mild scalp revitalization / compliance-focused use
SCALP TONIC	0.7-1.0%	Lightweight daily energizing application
BOOSTER SERUM	Up to 1.0%	Add-on performance enhancer

PRODUCT DATA SHEET (PDS)

9. Clinical Output

SHORT-TERM (2-4 WEEKS)	MID-TERM (4-8 WEEKS)	LONG-TERM (8-12 WEEKS)
<ul style="list-style-type: none"> ↑ Scalp microcirculation ↓ Hair shedding ↑ Follicular metabolic activity 	<ul style="list-style-type: none"> ↑ Hair density ↑ hair shaft thickness Visible reduction in telogen phase follicles 	<ul style="list-style-type: none"> ↑ anagen/telogen ratio ↑ follicular vitality and resilience Sustained hair growth cycle normalization



10. Clinical Performance (Trichonomics Aligned)

PARAMETER	OUTCOME
HAIR DENSITY	↑ 18-30% (8 weeks)
SHEDDING INDEX	↓ 35-50%
HAIR SHAFT DIAMETER	↑ 12-20%
ANAGEN RATIO	↑ 20-35%
FOLLICULAR ENERGY INDEX	↑ 40-60%

Clinical Performance Outcomes (Trichonomics Aligned)

Parameter	Percentage Increase (%)
Hair Density	~24%
Hair Shaft Diameter	~16%
Anagen Ratio	~28%
Follicular Energy Index	~50%

Actives

CONTACT US

✉ MENA.TECH@POLYGONBIOTECH.TECH

🌐 <https://actives.beauticslab.tech>

☎ Tel: + 02 106 9529952

VERSION 1.01

BEAUTICS
LABORATORIES