





MelanoGray[™] The hair color restoring essence





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Upcycled Mandarins against Hair Graying

MelanoGray $^{\text{TM}}$ is an anti-hair graying essence that is sustainably obtained by upcycling the peel paste from unique organic Chios mandarins. Thanks to its melanin stimulating and antioxidant activity, it markedly reduces the quantity of gray hair in both men and women.

The Chios mandarins exclusively grow under very specific conditions, which are optimally found in the beautiful historic orchards of the Greek island of Chios. MelanoGray[™] was produced from the leftovers of these special mandarins that are used in the distillation process of organic fragrance production. The extract is supplemented with acetyl tyrosine, which is the substrate for melanin synthesis.

In vitro and in vivo studies have demonstrated that $MelanoGray^{TM}$:

- Stimulates melanin production through several mechanisms, including the increased production of eumelanin, enhanced melanocyte proliferation, and the protection of melanocytes due to its antioxidant properties.
- Reduces the negative effects of noradrenalineinduced stress in melanocytes.
- Reduces in a significant and long-lasting way (>1 month) the amount of gray hair by 5% and increases the non-white hair/white hair ratio by 21.6% after 120 days treatment in men and women.

MelanoGray[™] is an attractive upcycling ingredient derived from a unique locally sourced mandarin that leads to a long-lasting significant reduction of gray hair, even during times of stress when hair graying can be accelerated.

MelanoGray™

- Reduces gray hair ratio by 21.6%
- Long-lasting repigmentation effect (> 1 month)
- Stimulates melanin synthesis
- Enhances resistance of melanocytes against stress

Applications

- Anti-hair graying serum
- Intensive anti-hair graying lotion for women and men
- Protective pigment restoring elixir
- Premature graying prevention treatment

Formulating with MelanoGray™

- Recommended use level: 1-2%
- Incorporation: For cold processes, dissolve MelanoGray[™]
 into the aqueous phase. In hot/cold processes, add
 during the cooling phase below 40°C
- Thermostability: Temperatures of up to 40°C for a short time will not affect the stability of MelanoGray™

INCI (EU/PCPC) Declaration

Citrus Reticulata Extract/Citrus Reticulata (Tangerine) Extract (and) Acetyl Tyrosine (and) Pentylene Glycol (and) Gluconolactone (and) Sodium Benzoate (and) Aqua/Water

Additional Information

- Organic source
- Upcycling ingredient
- Unique source from a historical place in Greece



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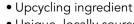
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Marketing Benefits



- Unique, locally sourced mandarin
- Organic source
- 1st Prize at the BSB Innovation Award in the category Cosmetics Raw Materials
- Silver Award for Green Ingredient at in-cosmetics Global 2022

Innovating for your success

Mibelle Biochemistry designs and develops innovative, high-quality actives based on naturally derived compounds and profound scientific know-how. Inspired by nature – Realized by science.



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