

AnteAGE MD® Brightening Science

Melanogenesis Pathways + Ingredients to Target

Pathway		Explanation	Ingredients
1	UVR	UV rays trigger the cascade of melanogenesis	SPF
2	aMSH inhibition	UV triggers downstream molecular signaling of the Melanocyte Stimulating Hormone	Tranexamic Acid • Alpha Bisabolol • Green Tea Extract
3	Tyrosine/ Tyrosinase Inhibition	Tyrosine amino acid begins the process of creating pigment via Tyrosinase enzyme	NAG • Tranexamic Acid • Tetrahexyldecyl Ascorbate • Alpha Bisabolol • Licorice Extract • Galangin • Oligopeptide-51 • Mulberry Leaf Extract • Green Tea Extract
4	DOPA/ DOPAquinone	Second step in tyrosinase mediated conversion	NAG • Tranexamic Acid • Alpha Bisabolol • Licorice Extract • Galangin • Oligopeptide-51 • Mulberry Leaf Extract • Green Tea Extract
5	Melanin Transfer	Melanin granules get transferred from melanocytes to keratinocytes	Niacinamide • Tetrahexyldecyl Ascorbate • Galangin
6	Oxidation	Free radicals triggers oxidation of cell structures and membrane lipids	Tetrahexyldecyl Ascorbate • Alpha Bisabolol • Licorice Extract • Galangin • Oligopeptide-51 • Mulberry Leaf Extract • Green Tea Extract
7	Cell Turnover	Melanin overloaded keratinocytes push to surface of the skin	EGF
8	Inflammation	The root of all evil	BMSC-CM • TGF-b3 • Tranexamic Acid • Alpha Bisabolol • Licorice Extract • Galangin • Mulberry Leaf Extract • Green Tea Extract