

Cosmetic applications

Triple-action mechanism

- Suntan accelerator: the use of cosmetic formulations containing this product before and during exposure to sunlight (sun protectors, suntan accelerators, face creams) produces quicker, deeper and safer suntan.
- Suntan prolonger: suitable for after sun skin care; maintains suntan for longer time.
- Reduces the effects of photoaging: activates the synthesis of collagen I.

Toxicological information

This product has been evaluated according to the available toxicological information, based on safety assays and bibliographical data. These data allow the conclusion that using this ingredient, under the normal conditions for the use of cosmetics and at the recommended concentrations, is free of risks.

Technical specifications

• Tanositol 73100

PROPERTIES	Suntan
ACTIVE MOLECULES	Chiroinositol
APPEARANCE	Fine powder Yellowish white
SOLUBILITY	Soluble in aqueous solutions
RECOMMENDED DOSE	0.05-0.1%

Formulation

• Suntan body spray

	INCI / PCPC	% (w/w)
A	Aqua (Water) Glycerin Imidazolidinyl Urea	73.98 3.00 0.30
B	Phenoxyethanol, Methylparaben, Butylparaben, Ethylparaben, Propylparaben, Isobutylparaben	0.60
	Parfum (Fragrance) Propylene Glycol PEG-40 Hydrogenated Castor Oil	0.50 2.00 1.30
C	Aqua (Water) TANOSITOL	1.00 0.10
D	Cetearyl Isonanoate, Cetareth-20, Cetearyl Alcohol, Glyceryl Stearate, Glycerin, Cetareth-12, Cetyl Palmitate	17.00
E	Sodium Hydroxide Aqua (Water)	0.02 0.20

Tanositol

Active ingredient from carob fruits
to accelerate, intensify and
prolong suntan



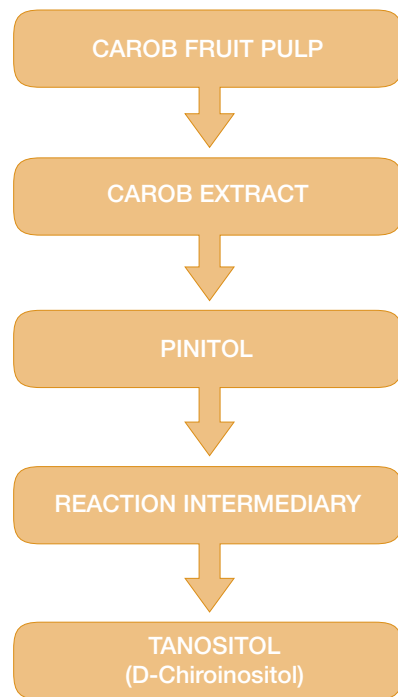
Sun care

Tanositol

This vegetable molecule accelerates and prolongs suntan. It is a Mediterranean active compound produced from the fruits of *Ceratonia siliqua* (Carob tree).

Following advanced technological processes Pinitol is extracted from the fruits' pulp and subsequently processed to produce D- Chiroinositol: Tanositol.

Tanositol plays a key role in the cascade of intracellular signals; it increases diacylglycerol (DAG) synthesis in melanocytes and activates the main melanogenesis pathway.

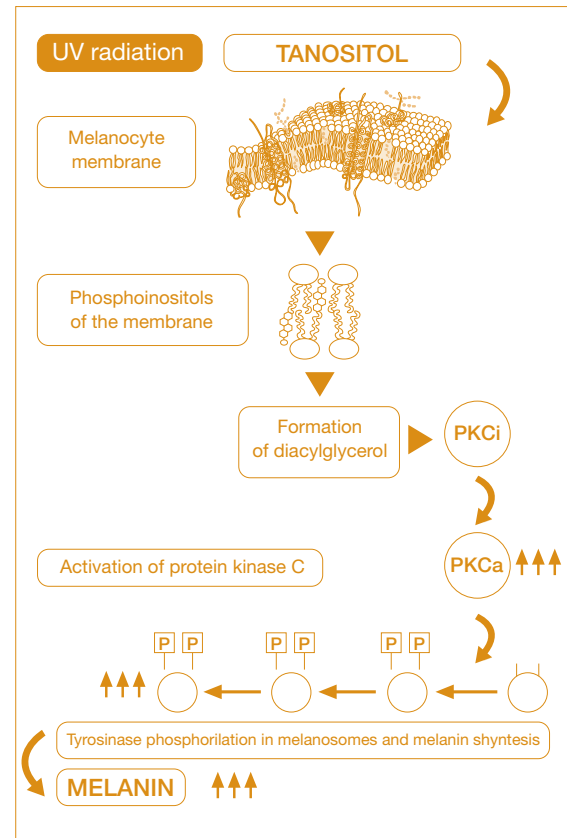


Features and benefits

Quicker and longer-lasting suntan

Tanositol application induces in melanocyte membranes the formation of different phosphoinositol molecules, which promote DAG synthesis. DAG in turn activates Protein kinase C, which phosphorylates tyrosinase and promotes melanin synthesis.

Tanositol stimulates post-irradiation melanogenesis, thus accelerating the late phase of suntan and providing quicker, safer and longer lasting skin pigmentation.

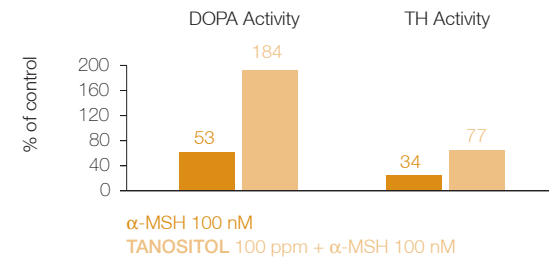


In Vitro

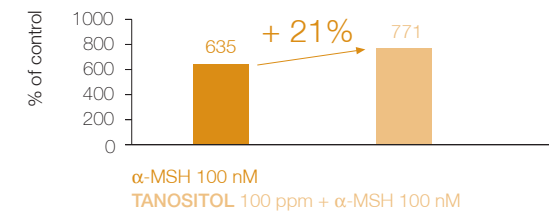
1. Increase in the enzymatic activity and increase in the amount of melanin

B16 cells were incubated with α -MSH and Tanositol for 72 hours.

• Increase in enzymatic activity



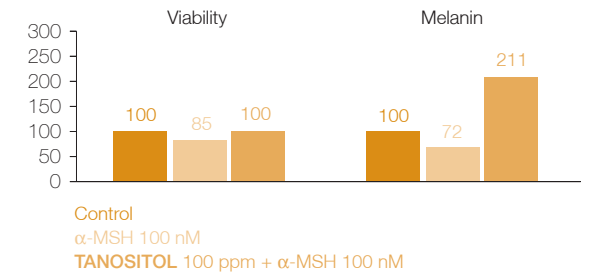
• Melanin quantity increase



2. Increase in the amount of melanin

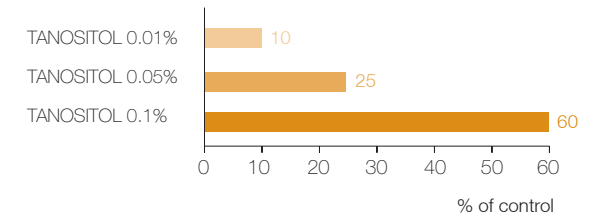
Human melanocytes (WR-2 QIn) were incubated with α -MSH and Tanositol for 14 days. Subsequently, cell viability and the amount melanin were evaluated.

• Increase of Melanin



3. Increase in collagen I synthesis

Cultures of human dermal fibroblasts (HDF) were incubated with Tanositol (0.01%, 0.05% and 0.1%) for 72 hours.



In Vivo

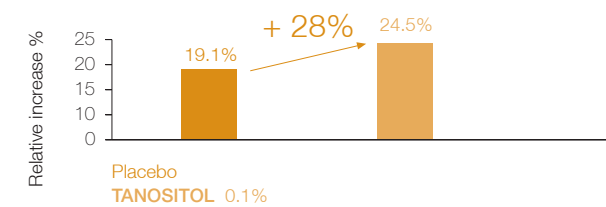
The study was carried out on 15 volunteers with phototypes III and IV.

Three treatment areas were established on the back of every volunteer.

Skin color was quantitatively evaluated by means of a Chromameter CR 300 (Minolta®).

4. Long lasting effect

• Deeper Suntan



• Longer-lasting Suntan

