

SpecKare™ ADSN (Adenosine)



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Adenosine is present in our cells and functions as a cell-communicating ingredient because it is a source of energy that supports healthy cellular activity.

Adenosine is considered a good anti-inflammatory ingredient .

Physical properties:

Appearance: White or almost white crystalline powder; easily soluble in hot water; not easily soluble in cold water.





Structural properties

Product Name: SpecKare™ ADSN

Product Code: 110027

INCI Name: ADENOSINE

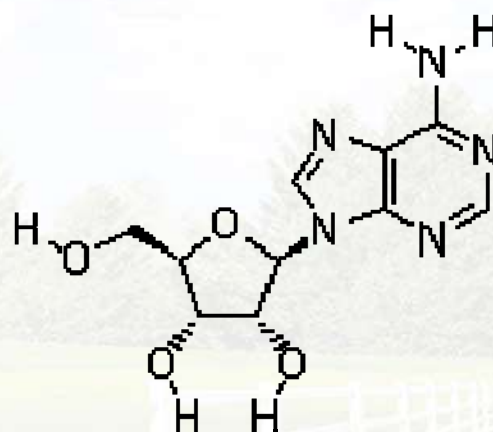
CAS No.: 58-61-7

EC No : 200-389-9

Molecular Formula: C₁₀H₁₃N₅O₄

Molecular Weight: 267.24 g/mol

Structure:



Application in Cosmetic



- ✦ Anti-aging, Wrinkles
- ✦ Skin Recovery Antioxidant
- ✦ Improve eczema, extra sensitive skin, redness
- ✦ Reduce signs of sun damage
- ✦ Hair growth, hair thickness
- ✦ Cleanser, Moisturizer, Hydrating Treatment Mask, etc.



Facial wrinkles effect



The objective of this study was to evaluate formulations containing adenosine to reduce periorbital lines and glabellar frowns in a blind, randomised, placebo-controlled study.

One hundred twenty-six female volunteers between 45 and 65 years of age fulfilled inclusion criteria for periorbital lines. They were provided with two of three products (cream with adenosine, dissolvable film with adenosine or placebo), to be applied to the periorbital area on each side of the face (84 subjects per product).



† Eighty-four of these subjects also fulfilled the inclusion criteria for glabellar frowns, and received placebo or cream with adenosine to be applied to the glabellar area. Products were applied twice daily for 2 months, and evaluation was performed under dermatological supervision at 0, 3 and 8 weeks using Fast Optical in vivo Topometry of human Skin (FOITS) analysis to describe skin profile.

Results indicates, Both adenosine-containing products led to significant improvements in skin smoothness in the periorbital area. Improvements were evidenced after 3 weeks and were steadily confirmed after 2 months.

Adenosine-containing cream also significantly improved glabellar frowns. This study demonstrates the potential beneficial effects of adenosine-containing products on crow's feet and glabellar facial wrinkles.

Wound healing effect



- ↑ Recent evidence indicates that topical application of adenosine A_{2A} receptor agonists, unlike growth factors, increases the rate at which wounds close in normal animals and promotes wound healing in diabetic animals as well as growth factors, yet neither the specific adenosine receptor involved nor the mechanism(s) by which adenosine receptor occupancy promotes wound healing have been fully established.
- ↑ To determine which adenosine receptor is involved and whether adenosine receptor-mediated stimulation of angiogenesis plays a role in promotion of wound closure we compared the effect of topical application of the adenosine receptor agonist CGS-21680 (2-p-[2-carboxyethyl]phenethyl-amino-5'-N-ethylcarboxamido-adenosine) on wound closure and angiogenesis in adenosine A_{2A} receptor knockout mice and their wild-type littermates.



Results:

Targeting the adenosine A_{2A} receptor is a novel approach to promoting wound healing and angiogenesis in normal individuals and those suffering from chronic wounds.

Increases thick hair ratio



- ↑ Adenosine improves hair loss by stimulating hair growth and by thickening hair shafts in women. The objective of this study was to evaluate the hair growth efficacy and safety of topical adenosine in men with androgenetic alopecia(AGA).
- ↑ Methods
- ↑ A lotion containing either adenosine or niacinamide was administered to the scalps of 102 Japanese men twice daily for 6 months in a double-blind, randomized study. Efficacy was evaluated by dermatologists who assessed the quality of the hair and by calculating the percentages of vellus-like and thick hairs among the vertex hairs, as well as hair density.



Results:

Adenosine was significantly ($P < 0.05$) superior to niacinamide in terms of global improvement of AGA, increase in the percentage of thick hairs (at least $60 \mu\text{m}$) and self-assessment of hair thickness by the study participants. No causal adverse event due to the adenosine lotion was observed.



Specifications(high quality)

Items	Requirements
Description	White or almost white crystalline powder
Identification	Infrared absorption
Loss on drying	$\leq 0.5\%$
Specific Rotation	-68.0° - 72.0°
Melting Point	$233-238^{\circ}\text{C}$
Residue on ignition	$\leq 0.1\%$
Heavy Metals	$\leq 10\text{ppm}$
Chloride	$\leq 70\text{ppm}$
Limit of Ammonia	$\leq 4\text{ppm}$
Limit of sulfate	$\leq 0.02\%$
Assay(HPLC)	$98.0-101.0\%$
Assay(HCLO4)	Conforms to the USP30

Data in the table as reference data





↑ **Packing:**

-1kg/Bag; 25kg/Drum;

↑ **Store condition:**

↑ -Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

↑ Recommended storage temperature: 2 - 8 ° C.

↑ **Dosage:**

↑ 0.01-0.5%

↑ **Shelf life:**

↑ 3 years;



Thank you for your interest and attention!

If you need sample and technical data, please contact us without hesitation



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