DINA
by
omnicane

DI-NAX

A NATURAL SOURCE OF ANTIOXIDANTS

INTRODUCTION

Di-NAX is a natural extract from the Saccharum Officinarum plant rich in bioactive compounds, mainly polyphenols, know for their antioxidant properties.
Di-NAX contains contains non-flavonoid andflavonoid compounds, tannins, and carotenoids.

DI-NAX

APPLICATION & BENEFITS

COSMECEUTICALS

- Topically applied cream (on the skin)
- **Benefit:** Effective against oxidative stress (helps prevent ageing) and improves skin condition.

NUTRACEUTICALS

- Formulation and study of bioassimilation through oral administration on healthy subjects.
- **Benefit:** Bioavailability and effectiveness against oxidative stress, improving the body's baseline condition.

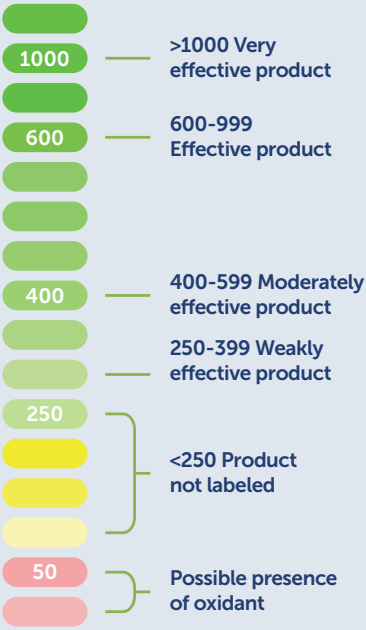
HEALTH CARE

- Formulation and study of bioavailability through oral administration on patients.
- **Benefit:** Bioavailability and effectiveness against oxidative stress, with research on metabolic syndrome (blood sugar regulation).

ANIMAL FEED INGREDIENT

- Formulation and study of bioassimilation through oral administration on animals.
- **Benefit:** Bioavailability and effectiveness against oxidative stress, along with enhanced organoleptic quality (milk, meat, etc.)

PAOT SCORE SCALE® INGREDIENTS



The PAOT™ Technology is a French innovation to obtain a reliable measurement of antioxidant and overall oxidative activity.
https://www.ie-antioxydants.com/en

WHAT ARE POLYPHENOLS?

Polyphenols are plant compounds with antioxidant properties.

Types include:

- Flavonoid compounds (flavonols,anthocyanins, tannins)
- Non-flavonoid compounds (phenolic acids).
- **Key polyphenols in Di-NAX:** epicatechin, epigallocatechin, proanthocyanidins.

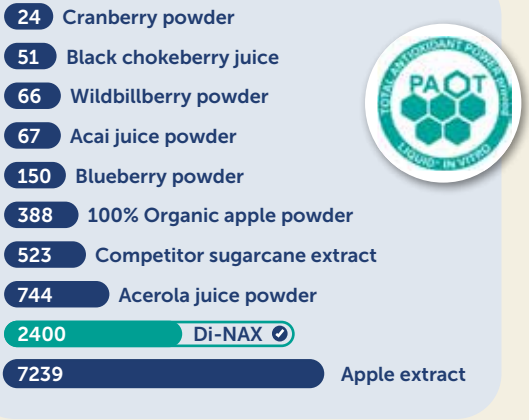
ANTIOXIDANT ACTIVITY OF DI-NAX

- PAOT Score: 2023/g equivalent to 507 mg Vitamin E/g or 207 mg Vitamin C/g, classifying Di-Nax as a 'very effective antioxidant'.
- Di-NAX neutralises free radicals and offers protection against oxidative stress.

COMPARISON OF ANTIOXIDANT ACTIVITY (PAOT SCORE)

- Di-NAX shows a PAOT score of 2400, significantly higher than other antioxidant extracts (cranberry powder and acai juice powder).
- Antioxidant sugars enriched with Di-NAX show higher PAOT scores compared to competitor products.

PAOT SCORE/G



COMPLETED STUDIES

EFFECT ON HUMAN INTESTINAL CELLS (CACO- 2 STUDY)

Objective:

To assess the bioavailability and protective effects of Di-NAX on intestinal barrier function.

Key Findings:

- Enhances transport of bioactive molecules .
- Protects the intestinal barrier from oxidative stress.

ANTI-AGEING EFFECTS IN COSMETIC CREAMS

Objective:

To test the effects of a face cream a face cream formulated with 1% Di-NAX on a selection of participants.

Key Findings:

- Improved skin antioxidant level by 50%.
- Enhanced skin hydration and reduced pigmentation.
- Slowed biological skin aging by 7%.

IN-VITRO ANTIOXIDANT STUDY ON ARPE-19 CELLS

Objective:

To evaluate the antioxidant effect of Di-NAX on retinal pigment epithelial cells.

Key Findings:

- Non-toxic at 100 µg/mL after 48 hours.
- Reduces ROS and protects mitochondrial integrity. (Reactive Oxygen Species)
- Potential health benefits for conditions linked to oxidative stress, such as Parkinson's disease.

CONCLUSION

Di-NAX is a powerful natural antioxidant extract that offers exceptional protection to cells against oxidative stress.
Its rich polyphenol content makes it a versatile ingredient for a wide range of applications.

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