

DETOX, ANTIOXIDANT, HEALTHY SKIN



 **indena**[®]
INDUSTRIA
DERIVATI
NATURALI

NUTRACEUTICAL

PUREBKALE[™]

STANDARDIZED BLACK KALE
SEED EXTRACT

PUREBKALE[™]

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WHAT IS PUREBKALE™?

PUREBKALE™ is an **aqueous dry extract** from seeds of *Brassica oleracea var. viridis* (L.) (syn. *Brassica oleracea var. acephala* DC.) - Brassicaceae family, standardized in glucoraphanin.

SPECIFICATIONS

PUREBKALE™ is standardized to provide **≥17% of glucoraphanin** by HPLC.

RECOMMENDED USE AND DOSE

PUREBKALE™ is a dark brown powder for use in nutritional supplements.

Recommended dose:¹ 150 mg/day (providing 25 mg/day of sulforaphane glucosinolate).

TRADEMARKS

PUREBKALE™ is a trademark of Indena S.p.A. and its logo and usage guidelines are available from Indena.

References

¹ Kikuchi M *et al.*, *Jpn Pharmacol Ther* (2018) vol. 46 no. 1

² Cascajosa-Lira *et al.*, *Phytomedicine* 130 (2024) 155731.

³ Samec *et al.*, *Critical Reviews in Food Science and Nutrition*, DOI: 10.1080/10408398 (2018) 1454400

⁴ Moskwa *et al.*, *Nutrients* (2023), 15, 3594.

WHAT MAKES PUREBKALE™ UNIQUE?

PUREBKALE™ is crafted with the hallmark quality that defines Indena's manufacturing processes.

From the very beginning, **Indena selected the optimal source of *Brassica oleracea*** through a meticulous screening of more than 20 seed samples from different varieties.

This effort resulted in an extract with a **unique high concentration of glucoraphanin - at least 17%** - using exclusively water as solvent, resulting in a **food-grade product**.

Glucoraphanin is a precursor to sulforaphane, a compound extensively studied for its **health-promoting properties**.

Scientific literature supports the **enzymatic conversion of glucoraphanin into sulforaphane by the myrosinase activity of a specific bacteria of the human gut microbiota**.² This transformation unlocks the bioactive potential of sulforaphane, which has been linked to a **variety of benefits like detoxifying and antioxidant capabilities, as well as in the context of "beauty from within"**.

Specifically, sulforaphane has shown promise in **preventing photoaging of the skin and reducing the risk of sunburns by modulating the effects of UV radiation**. Additionally, sulforaphane promotes **skin nourishment, making it a powerful ingredient for overall skin health**.^{3,4}

From a **supply chain** perspective, Indena takes pride in a fully controlled and entirely Italian supply chain. **By working in harmony with local communities, Indena ensures that seed sourcing is sustainable, with no negative impact on the plant itself**.

This **commitment to quality, sustainability, and community respect** is at the core of Indena's approach, further distinguishing **PUREBKALE™** as a premium ingredient.

