

NATURAL SUPPORT TO ACHE MANAGEMENT



 **indena**<sup>®</sup>  
INDUSTRIA  
DERIVATI  
NATURALI

NUTRACEUTICAL

**ACMELAIN**<sup>®</sup>

ACMELLA STANDARDIZED EXTRACT

 **acmela:n**<sup>™</sup>

Please note this documentation is available for various countries all over the world and hence it may contain statements or product classification not applicable to your country. The claims made are in reference to ingredients only, hence they do not refer to finished products and they may not comply with Regulation EC n. 1924/2006. The marketer of any finished product containing any ingredient is responsible for assuring that the destination of the product and the claims made for the finished product are lawful and comply with all applicable laws and regulations of the country or countries in which the product is to be sold.

## WHAT IS ACMELOIN®?

**Acmella** (*Acmella oleracea* L.), also known as the “toothache plant” in some cultures, is a botanical species that has been **used for centuries to treat oral pain thanks to its analgesic properties**. From a phytochemical point of view, its leaves and flowers (aerial part) are rich in **bioactive compounds, especially alkylamides**.

Studies have shown that **the most important one among these is spilanthol**, because it promotes local anesthetic action as well as many other biological activities, leading to analgesic, antinociceptive, antioxidant and anti-inflammatory benefits.<sup>1</sup>

**ACMELOIN®** is a formulation of *Acmella oleracea* standardized extract with the use of a custom delivery system based on  $\alpha$ -cyclodextrins, and it can be a reliable ally to maintain a reasonable wellbeing in conditions where chronic pain may occur.

## SPECIFICATIONS

**ACMELOIN®** contains:

**1.9-2.4% *Acmella oleracea* st. extract** corresponding to **0.30-0.60% spilanthol** by HPLC.

## REFERENCES

<sup>1</sup> Rondanelli M. et al., *Fitoterapia*, 140 104419 (2020).

<sup>2</sup> Petrangolini G. et al., *J Nutr Food Sci*, 10:766 (2023).

<sup>3</sup> Boccella S. et al., *Phytotherapy research*, 1:4 (2023).

<sup>4</sup> Rondanelli M. et al., *Journal of Pain Research*, 13:741 (2020).

<sup>5</sup> Poli P. et al., *Evidence-based complementary and alternative medicine*, 2022.

## WHAT MAKES ACMELOIN® UNIQUE?

**Acmella's mode of action is complex and based on the integration of different mechanisms.**

In vitro studies by Indena have pointed out that this extraordinary plant has a **double effect on ache relief support: a direct one, due to the interaction with cannabinoid receptor CB2, and an indirect one, through the inhibition of the FAAH enzyme, involved in physiological ache relief processes.**<sup>2</sup>

One more point in favor of **ACMELOIN®** is that it can be a reliable team player: preclinical in vivo studies have proved that, **when used in combination with *Boswellia serrata* extract, it exerts a significant synergistic action counteracting neuropathic pain symptoms.**<sup>3</sup>

Moreover, clinical evidence has demonstrated that **when administered with *Zingiber officinalis* formulations (such as Indena's MITIDOL®), it can contrast discomfort in individuals with knee osteoarthritis.**<sup>4</sup>

Finally, recent results have shown that when subjects under medical cannabis treatment are supplemented **with a combination of Coenzyme Q10 (such as Indena's UBIQSOME®), ginger extract and acmella extract, they report a significant beneficial effect.**<sup>5</sup>

indena.com

