



NATURAL ACHE RELIEF

 **indena**[®]
INDUSTRIA
DERIVATI
NATURALI

NUTRACEUTICAL

MITIDOL[®]

ZINGIBER AND ACMELLA
STANDARDIZED EXTRACTS COMBINATION

mitidol[®]

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WHAT IS MITIDOL®?

MITIDOL® is a formulation of two standardized botanical extracts, namely *Zingiber officinale* and *Acmella oleracea* effective as natural adjuvant in ache management.

SPECIFICATIONS

MITIDOL® is standardized to contain:

9.6-11.8% *Zingiber officinale* CO₂ extract
(2.4-3.9% total gingerols and shogaols by HPLC)

1.9-2.4% *Acmella oleracea* st. extract
(0.30-0.60% spilanthol by HPLC)

SUGGESTED USE AND DOSE

MITIDOL® is a yellowish fine powder with good technological properties (e.g. density, flowability), easy to formulate and mainly suitable for capsules and tablets.

Suggested dose: **350 mg twice a day**

References

¹International patent application WO2018/108549

²Rondanelli M., et al., *Phytotherapy Research* 34(11):2843-56 [2020].

³Rondanelli M., et al., *Fitoterapia* 140: 104419 [2020].

⁴Rondanelli M., et al., *Journal of Pain Research*, 761-70 [2020].

⁵Poli P. et al., *Evidence-based complementary and alternative Medicine* 2022(1) 7099161 [2022].

⁶Petrangolini G. et al., *J Nutr Food Sci*, 10:766 [2019].

WHAT MAKES MITIDOL® UNIQUE?

MITIDOL® is a proprietary¹ association of two standardized botanical extracts able to support ache management. The innovative composition exploits the properties of two traditionally used plants:

● ***Zingiber officinale***

- gingerols and shogaols are the main extract components;
- traditionally used, the plant has a vast scientific literature, with studies documenting their ability to modulate many enzymes involved in the healthy inflammatory response;²

● ***Acmella oleracea***

- Indena proprietary plantations in Italy;
- fully sustainable source of alkylamides;
- compliant to main worldwide regulations;
- the main component, **spilanthol**, is effective at low dosages and in literature has shown a plethora of beneficial effects.³

A one-month human efficacy study on joint challenges on **MITIDOL®** showed:⁴

- optimization of knee functionality confirmed in two different tests: Lhysolm and Womac scale
- beneficial effect onset already after 2 days, with significant amelioration of symptoms after 7 days;
- improvement in Quality of Life score (SF-36 questionnaire)
- improvement in physical activity
- healthy modulation over biomarkers of inflammation:
 - 12.7% Erythrocyte Sedimentation Rate
 - 36.4% high sensitivity CRP

Recent scientific evidence has shown that when subjects under medical cannabis treatment are supplemented with a combination of Coenzyme Q10 (such as Indena's **UBIQSOME®**) and **MITIDOL®**, they report a significant beneficial effect.⁵

Two mechanistic studies suggested that, **MITIDOL®** could **selectively act on cannabinoid CB2 receptors** compared to competitors like *Piper nigrum*, *Commiphora mhirra* and palmitoylethanolamide, and as a possible FAAH enzyme inhibitor, showing a **double action on endocannabinoid system in favour of healthy inflammatory response and ache control**.⁶

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